



Erasmus+

University of Ruse



**Faculty
of Natural Sciences
and Education**

University of Ruse Angel Kanchev

FACULTY OF NATURAL SCIENCES AND EDUCATION

Erasmus+ ECTS Information Package

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GENERAL INTRODUCTION

THE ECTS SYSTEM

The **Information Package** provides a description of the University of Ruse, of the Faculty of Natural Sciences and Education and the courses offered by the Faculty in order to help prospective ECTS students to prepare for their study period at this institution.

What is ECTS?

ECTS, **The European Credit Transfer and Accumulation System**, was developed by the Commission of the European Communities in order to provide common procedures to guarantee academic recognition of studies abroad. It provides a way of measuring and comparing learning achievements and transferring them from one institution to another. The European Commission promotes the system and the international cooperation between universities as a means of improving the quality of education bringing benefits both to students and higher education itself. In this respect, student exchange is the basic element in university cooperation. Recognition of education and diplomas is the necessary condition for establishing an open European higher education space where students and lecturers can “move” with no restriction.

ECTS provides **transparency** through the following means:

- **ECTS credits** which are a numerical value allocated to course units to describe the student workload required to complete them;
- **The Information Package** which supplies written information to students and staff on institutions, departments/faculties, the organization and structure of studies and course units; it also provides useful information about the location of the University, its admission procedures, accommodation opportunities, academic calendar, etc.
- **The Transcript of Records** which shows students’ learning achievements in a way which is comprehensive, commonly understood and easily transferable from one institution to another;
- **The Learning Agreement** covering the programme of study to be taken and the ECTS credits to be awarded for their satisfactory completion, committing both home and host institutions, as well as the student.

The ECTS Credits

ECTS credits are allocated units to describe the student workload required to complete them. They reflect the quantity of work each course requires in relation to the total amount of work required to complete a full year of academic study at the institution, i.e. lectures, practical classes, seminars, self-study – in a library or at home - and exams or other assessment activities. ECTS credits express a relative value.

In ECTS, **60 credits** represent the workload of a year of study; normally **30 credits** are given for a semester and **20 credits** for a term. It is important that no special courses are set up for ECTS purposes, but that all ECTS courses are mainstream courses of the participating institutions, as followed by the home students under normal regulations. Credits are awarded only when the course has been completed and all required examinations or other assessment activities have been successfully passed. Detailed information about disciplines (short description of course contents, teaching methods, types of assessment, etc.) is given in the information package of each degree programme.

ECTS Students

Students participating in ECTS receive full credit for all academic work successfully carried out at any of the ECTS partner institutions. These credits are transferred to the home university and fully replace the annual/semester workload including exams and other forms of assessment. In this way students can study abroad for a certain period of time and when they come back, they are able to continue their education without any loss of semesters and exams. Some students may also decide to graduate from the host university, and permission for that is given by the academic authorities based upon the student’s transcript of credit points and his/her performance at the home university.

DATA ABOUT BULGARIA

The Republic of Bulgaria is a country situated in South-East Europe. In the north it borders the Republic of Romania, in the east it ranges to the Black Sea, in the south it neighbours the Republic of Turkey and the Republic of Greece, and in the west it borders (former Yugoslavian) Republic of Macedonia and Republic of Serbia.

Area: 110,993.6 sq km

Population: 6, 911, 661

Capital city: Sofia

Official language: Bulgarian

Alphabet: Cyrillic

Religion: There is freedom of religious confessions. Traditional religion in the Republic of Bulgaria is Eastern Orthodox Christianity

National holiday: March 3, the Day of the Liberation of Bulgaria from Ottoman domination (1878)

Public (non-working) holidays:

3 March – Liberation Day (national holiday)

1 January – New Year

Easter (Resurrection of Christ) – two days (Easter Sunday and Easter Monday)

1 May – Labour Day (the Day of International Working Class Solidarity)

6 May - Day of Bravery and Bulgarian Army, Gergyovden (St. George's Day)

24 May – Day of Bulgarian Education and Culture, and of the Slavonic Alphabet

6 September - Unification Day

22 September - Independence Day

1 November – Day of the National Revival Leaders

24 December – Christmas Eve

25 and 26 December - Christmas

Monetary unit: the Bulgarian Lev (BGN)

Administrative division: 28 regions, named after their respective regional centres

State system: a parliamentary republic with a one-chamber parliament (National Assembly), consisting of 240 national representatives, elected for a four-year term of service. The head of state of the republic is the President, elected for a five-year term of service. The Council of Ministers is the main body of executive power.

Climate: moderate continental with Black Sea influence in the east and Mediterranean in the south

Waters: rivers (main rivers are the Danube, Maritsa, Mesta, Strouma, Iskar, and Yantra); warm and cold mineral springs (more than 600)

Transport: railway, automobile, air and water

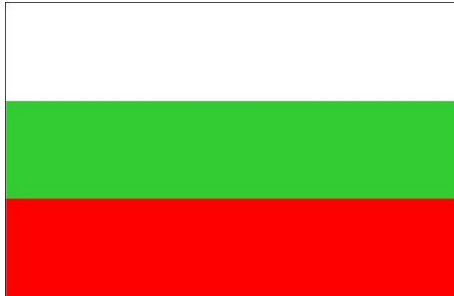
International automobile sign: BG

International telephone code: +359

International telephone code for Ruse: +359 82

Official Symbols of Bulgaria

The national flag of the Republic of Bulgaria is in three colours: white, green and red bands, following horizontally from top to bottom.



A legend associates the origin of these three colours with the colour symbols of the Old Bulgarian Army. Its left wing was set apart by white strips on the spears, the right one by red, while arranged in the centre were the elite troops with a green strip, the traditional colour of the ruler. The three-colour flag was first used by the First Bulgarian Legion of Georgi Rakovski (1861). By force of the Turnovo Constitution (1879), the three-colour flag - white, green and red, was confirmed as Bulgaria's national flag.

The coat-of-arms of the Republic of Bulgaria is a rampant gold crowned lion against a dark-red background in the form of a shield. Above the shield there is a big crown, whose original shape was that of the crowns of medieval Bulgarian rulers, with five crosses and one other cross, separately, over the crown itself. The shield is supported by two golden crowned rampant lions, facing the shield from the left and right heraldic side. They are standing on two crossed oak tree twigs with acorns. Inscribed in golden letters onto a white strip with a three-colour edging, placed under the shield across the ends of the oak twigs, is ***Union is Strength***.



The Bulgarian Landmarks in the UNESCO List of the World Natural and Cultural Heritage

Kazanluk Tomb

A Thracian tomb, dated to the late 4th-early 3rd century B.C. The murals in the burial chamber and in the corridor are of exclusive artistic value. The tomb is located in the Tyulbeto Hill near the town of Kazanluk.

Ivanovo Rock Churches

A rock monastery compound of the Holy Archangel Michael, with partially preserved churches. The murals in the Church of the Holy Virgin have been described as some of the most significant achievements of 14th century Bulgarian medieval art. The churches are located about 20 km away from the city of Ruse, east of the village of Ivanovo, in the rocks of the Rusenski Lom Nature Park.

Boyana Church

It has unique murals from 1259, considered among the masterpieces of medieval European painting. It is at a distance of about 8 km from the centre of the city of Sofia (in the Boyana residential district), in the foothills of Mount Vitosha.

Madara Horseman

A rock relief, cut into the Madara rocks on the northern slope of the Provadiisko Plateau at a height of 23 m. This is the most significant monumental piece of art from the early Middle Ages, unique of its kind in European cultural history. It is close to the village of Madara, about 16 km away from the city of Shumen.

Rila Monastery

The most impressive monastery compound in Bulgaria of exceptional architectural and artistic merits. Founded in the 10th century, rebuilt in the 13th-14th century, a literary centre in the 15th century and completed in its present-day striking appearance during the 19th century. A spiritual centre of the Bulgarian people, it is located in the northwest part of the Rila Mountain, about 20 km from the town of Rila and about 120 km from Sofia.

Nessebur, the old part of the town

An architectural, historical and archaeological reserve at the Black Sea coast with valuable archaeological relics from different periods, original churches from the 5th to the 17th century and authentic National Revival Period houses.

Sveshtari Tomb

A Thracian tomb from the first half of the 3rd century B.C. The central burial chamber has exceptionally lavish decoration and impressive caryatides in high relief. It is located close to the village of Sveshtari, 7 km northwest of the town of Isperih.

Sreburna Reserve

A biosphere reserve in the valley of the Danube, including the Sreburna Lake and its surroundings. It has been established for the preservation of rare plant and animal species. It is 16 km west of the town of Silistra.

Pirin National Park

It is part of the scenic Pirin Mountain. Located in the high parts of the Northern Mount Pirin, it is characterized by a specific relief and an inimitable plant and animal world. It also incorporates the Bayuvi Dupki - Dzhindzhiritsa Biosphere Reserve and the Yulen Reserve.

**INFORMATION
ON
THE CITY
AND
THE UNIVERSITY**

THE CITY OF RUSE

Welcome to Ruse



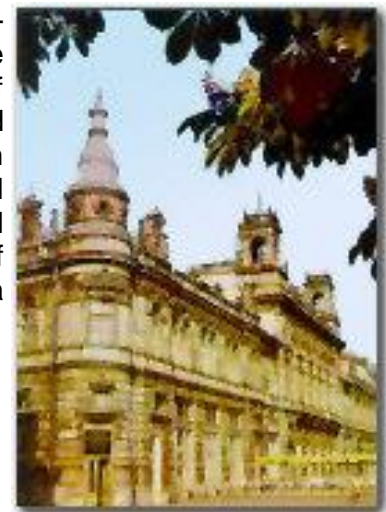
" ... All that I experienced afterwards had already been in Roustchouk"
Elias Canetti



Ruse is the biggest Bulgarian port town on the bank of the river Danube. After the opening of the Rhein - Main - Danube canal which covers 3,500 km and connects thirteen European countries with the Near and Far East via the Black Sea, the river becomes the longest inland waterway on the planet.



This key position has determined the nineteen century long co-existence of town, river, and people, carrying the unique atmosphere of history as a precious heritage, and of future as an open road full of promises. The Romans were the first to build the fort which they called Sexaginta Prista (the port of sixty ships). Then came others, from Europe, leaving their indelible imprint in this intersection of material and spiritual culture, followed by the imbued with the zeal of drive and enterprise Bulgarians, who gradually turned the place into a centre of the Bulgarian national revival. The very name Ruse became a synonym of economic growth and cultural rebirth.





The nineteenth century saw here the opening of the first Bulgarian printing house, the first model farm, the first Bulgarian railroad connecting Ruse with Varna, the first Bulgarian weather service, the first technical school and technical society, the first professional teachers' club, the first insurance agency, the first chamber of commerce and industry, the first inland navigation service on the

Danube, the first teletel, the first moving picture show, the first Bulgarian newspaper, the first geography map.



New industries sprang up, banks and trade agencies were founded and European shipping agencies, as well as 17 foreign consulates were established. A large number of Bulgarian, Austrian, Italian, and Swiss men of arts created the wealth of architectural forms and styles characteristic of the period in Europe: Neoclassicism, Neo-baroque, Neo-gothic style, Art Nouveau, and Fin du siecle.

The town hosted a vast variety of multinational ethnic groups, which the Nobel writer Elias Canetti defined as a microcosmos of two dozen nationalities. French, German, Italian, Jewish, Armenian, Turkish, and other schools, boarding houses and churches, reading clubs, theatres and music halls, museums and bookshops, opened their doors to help diversify the cultural life of the city in its steady march towards enlightenment. In this completed picture of social life, today the town is still rediscovering its true face, spanning a bridge across cultures in the new context of integrated Europe.



THE UNIVERSITY OF RUSE



On **12 November 1945** the first out-of-capital higher education institution was founded in Ruse as an engineering school. Its three departments were specialized in Engineering for the purposes of the agricultural sector.

On **13 June 1966**, as a result of its intensive growth, the Minister of Education issued an Order No. 2583 to set up a Higher Institute of Mechanical Engineering, Mechanization and Electrification of Agriculture.

On **9 April 1981**, due to the widened scope of its engineering provision, including the sectors of transport, electronics and computing, it was transformed into 'Angel Kanchev' Technical University by a Decree No. 584 of the Council of Ministers.

On **1 August 1995** a Decision of the National Assembly was made to convert the Technical University in "Angel Kanchev" University of Ruse, thus recognizing its academic expertise not only in the engineering fields, but also in natural sciences, education, law, public health and healthcare, business and management, which were introduced as a response to the needs of the regional businesses and the community.

Mission statement of Ruse University

The University aims to provide:

*Dissemination of knowledge,
excellence in fundamental and applied research and
introduction of innovations in practice,
which will help it to train highly-qualified specialists and
maintain the sustainable development of the region and the country.*

Academic Calendar

The academic year at the University of Ruse starts in September and is divided into two semesters – Fall and Spring. Each semester consists of:

- 15 weeks of classes;
- 4 weeks of regular examination session;
- 1 week for supplementary examination and 1 vacation week after the fall semester;
- Summer holidays (4-8 weeks) start after the end of the examination session and last till the beginning of the new academic year or till the beginning of the annual supplementary examination session in September for those students who have to resit exams left from the previous year.

The organisation of the training process is realised in the framework of the *Academic Calendar*, which is adopted each year by a resolution of the University's Academic Council.



PROFILE OF THE UNIVERSITY OF RUSE (UR)

Name of higher education institution	University of Ruse Angel Kanchev
Type of higher education institution	State University
Location and address	8 Studentska Street, 7017 Ruse, Bulgaria



Rector **Academician Hristo Beloev, DHC multi, MEng, PSc**

Number of students for the academic **2022-2023** year: **6318**

Number of international students: **173** from **22** countries

Number of PhD students: **234**

Full-time academic staff: **398** (**262** full and associate professors; **31** Doctor of Sciences; **425** with a PhD degree)

Non-academic staff: **129**

Number of the degree programmes offered:

55 Bachelor and 130 Master degree programmes in **7** of the **9** fields of study in higher education in Bulgaria (Engineering and Technology, Social Studies, Economics and Management, Law, Education, Humanities, Mathematics and Natural Sciences, Health Care and Sport, Security and Defence).

The University of Ruse is the only university in Ruse, Razgrad, Silistra and Targovishte districts (with a population of approximately 1 million), which complies with the international index “one higher education institution per one million people”.

The University of Ruse is a full member of:

- European University Association;
- Danube Rectors' Conference;
- Visegrad University Association;
- Interuniversity Center-Dubrovnik.
- Balkan University Association.

The University of Ruse was accredited by the National Evaluation and Accreditation Agency for a six-year period with the grade – **9,44** out of **10**.

International activity



The University of Ruse develops its international activity through:

- Participation in scientific programmes of the EU: FRAMEWORK PROGRAMMES, HORIZON 2020;
- Participation in academic programmes of EU: CEEPUS, ERASMUS+, ERASMUS MUNDUS, TEMPUS, etc.;
- Participation in other EU funding schemes: Operational Programmes 2007-2013 and 2014-2020 in Bulgaria, Romania-Bulgaria Cross Border Cooperation Programme 2007-2013, COST, Competitiveness and Innovation Framework Program (CIP), Intelligent Energy Europe Programme, South East Europe Transnational Cooperation Programme, Europe for Citizens, etc.
- Programmes for cooperation with Germany – DAAD, Baden-Wuerttemberg Stiftung
- Participation in bilateral exchanges with above 60 signed bilateral agreements for institutional partnership with other universities and scientific-research institutes.
- Organization and participation in international events

The University of Ruse is one of the first Bulgarian universities which started its participation in the ERASMUS programme. Now there are more than 250 bilateral agreements signed with universities from 28 European countries. At least 80 undergraduate, post-graduate and PhD-students are annually involved in all EU exchange programmes. The University of Ruse is the only university in Bulgaria which coordinates fourth thematic networks of about 70 participants each from 35 countries.



Admission of foreign students

Terms of study:

- *For a Bachelor's degree* - 4 years;
- *For a Master's degree* – 1 or 2 years depending on the Bachelor's degree acquired;
- *For a Doctoral degree* – at least 3 years.

Degree programmes at the University of Ruse

Faculty of Agricultural and Industrial Engineering:

- Agricultural Machinery and Technologies
- Ecology and Environmental Protection
- Industrial Design
- Air-conditioning, Hydraulics and Gas Supply
- Agricultural Engineering
- Plant Growing
- Equipment Maintenance and Management

Faculty of Mechanical and Manufacturing Engineering:

- Mechanical Engineering
- Quality Management and Metrology
- Industrial Engineering
- Civil Engineering

Faculty of Electrical Engineering, Electronics and Automation:

- Electrical Power Engineering
- Electronics
- Automatics and Mechatronics
- Computer Systems and Technologies
- Internet and Mobile Telecommunications
- Information and Communication Technologies
- Information and Communication Technologies (in English)

Faculty of Transport Engineering:

- Transport Engineering
- Transport Engineering and Management
- Technology and Logistics of Water Transport

Faculty of Natural Sciences and Education:

- Computer Science
- Informatics and Information Technologies in Business
- Software Engineering
- Financial Mathematics
- Pedagogy of Education in Mathematics and Informatics
- Bulgarian Language and History
- Pre-school and Primary School Education
- Primary School Education with a Foreign Language
- Social Pedagogy

Faculty of Business and Management:

- Business Management
- Marketing
- International Economic Relations
- Economics
- European Studies and Multilevel Governance
- European and Global Studies (in English)
- Business Administration
- Industrial Management

- Euro-Atlantic and Global Security
- Security of citizens and property in cross-border environment

Bulgarian-Romanian Interuniversity Europe Centre (BRIE):

- European Studies and Regional Cooperation (in English and German)
- European Studies and Public Administration (in English)

Faculty of Law:

- Law

Faculty of Public Health and Health Care:

- Kinesitherapy
- Occupational Therapy
- Nursing
- Midwifery

Silistra Branch:

- Bulgarian Language and Foreign Language
- Physics and Informatics
- Electrical Engineering
- Automotive Engineering

Razgrad Branch:

- Biotechnologies
- Chemical Technologies
- Food Processing Technologies

Vidin Branch:

- Bulgarian Language and History
- Pre-primary and Primary School Pedagogy
- Electronics
- Agricultural Machinery and Technologies
- Industrial Management
- Computer Science
- Transport Engineering and Management

Other University Units and Services

- Quality of Education and Accreditation Directorate
- Public Relations Directorate
- Foreign Students Directorate
- Student Admissions and University Registrar
- Scientific Research Sector
- University Computing and Information Services Center (UCISC)
- Center for Distance Learning
- European Integration and International Cooperation Sector
- Center for Continuing Education
- Center for Career Development
- University Library

The language of instruction for students in Bachelor and Master Degrees is Bulgarian. The University of Ruse offers 2 Bachelor and 2 Master degree programmes in English

Bachelor degree programmes

- Information and Communication Technologies;
- European and Global Studies.

Master degree programmes

- European Studies and Regional Cooperation (in English and German);
- European Studies and Public Administration.

Application Procedures

General Conditions and Documents for Admission of Foreign Students

Foreigners, who hold a high school diploma, giving them access to universities in the country issuing this diploma, are eligible for admission into the University of Ruse.

Preparatory Year

During their first year at the University foreign students study Bulgarian in a 10-month intensive course, tailored to meet the needs of linguistic and specialist training of international bachelor, master and PhD students. The course is organized by the Foreign Students Directorate.

Tuition Fees

Foreign citizens, studying at Ruse University, pay tuition fees. The fees are paid in two installments: at the beginning of the academic year and at the beginning of the second (Spring) semester.

For sending applications and for more detailed information foreign applicants can address:

*Foreign Students Directorate
University of Ruse
8 Studentska Street
7017 Ruse
Bulgaria
tel: +359 82 888 281
e-mail: chs@uni-ruse.bg*



Application documents and procedures for admission of foreign students within exchange programmes of the European Union

Application and admission of international students to different programmes of the European Union are prepared in compliance with the individual bilateral or international agreements.

For international students, who wish to study at the University of Ruse within the ERASMUS programme, selected courses are offered in English. The list of these courses can be found on the university WEB site. <http://erasmus.uni-ruse.bg/en/?cmd=cmsPage&pid=29>

For sending application forms within ERASMUS and for more detailed information foreign applicants can address the International Relations and Erasmus Office:

*International Relations and Erasmus Office
University of Ruse
8 Studentska Street
Ruse 7017
Bulgaria
tel/fax: +359 82 888 650
e-mail: eims@uni-ruse.bg
<http://erasmus.uni-ruse.bg/bg/?cmd=gsIndex>*



General Information

Visa Requirements

According to the Law for Foreigners' Stay in the Republic of Bulgaria, each foreigner may enter the country with a valid passport (or other ID document) and an entry visa for Bulgaria. Entry visas are issued in all Embassies or Consulates of Bulgaria abroad. *No visas are required* for citizens of the countries of the European Union and of a number of other countries as well. On arrival in Bulgaria, every foreigner, if not accommodated in a hotel, should, within 24 hours, register his/her address with the Passport Service for Foreigners. Foreigners who are admitted as students at the University of Ruse should present their documents for admission issued by the University. This will allow them to get permission for longer stay in the country after their entry visas expire.

Traveling to Ruse



The distance from Ruse to Sofia (the capital city of Bulgaria) is 315 km.

The distance from Ruse to Bucharest (the capital city of Romania) is 60 km.

Travel to both capital cities is by train and by bus.

There are also provisions for quick and easy transport to various parts of the city and other regions of the country

After arriving at the University each international student is welcome to contact the office of the Foreign Students Directorate while Erasmus students have to contact the Center for European Integration, International Cooperation and Mobility.

Living Expenses

The optimum amount of living expenses is connected with a balanced budget, including subsistence costs, accommodation costs, medical services, public transport, food and public services, tuition costs (for EU member country students) and some other expenses. Minimum living costs are achieved through the use of the refectory and through modest expenses for transport and other public services. Under these conditions, the average living expenses may range from 150 to 250 Euro per month.

Accommodation and on-campus facilities

Accommodation can be found in several sectors:

In one of the many hotels in Ruse. The approximate price for a single room is about 40 – 80 Euro per night. **In one of the cheaper hotels.** Offering less comfort, or in single rooms in hotel chains at prices about 15–25 Euro per night. **Renting a flat.** The rent for such a flat (1 to 3 rooms) varies from 60 to 250 Euro per month depending on the degree of comfort, furniture and location. Rents exclude expenses for electricity, hot water, central heating and telephone, which may cost about 50–100 Euro per month.

The University of Ruse offers very good on-campus accommodation for 2400 students at rents of about 35 Euro per month. There are eight student hostels, two of which are for families.

The University of Ruse on-campus facilities offer excellent opportunities for study, research, recreation and sport. The student hostels, the refectory, the medical centre, the post office, the sports facilities and the student culture club are all situated on campus, which is surrounded by green parkland and is within easy reach of the city parks, the river Danube and the city centre.



There is a variety of amateur clubs, forming the Student Cultural Club Society, which was established in 1954. Examples are the Folk Dance Theatre, the Artists Club, the Pantomime Studio, the Drama Society, the Photographer's club, the Literature Club, the Modern Dance Society, and the folk dance band. Their guidance is entrusted to distinguished performers, artists and musicians.



The University of Ruse offers on-campus sports facilities for volleyball, basketball, table tennis, bodybuilding, football, field and track events and other sports. The sports teams and clubs for football, athletics, volleyball, basketball, handball, aerobics and calisthenics are the responsibility of qualified teachers, which explains why they often win first prizes at various competitions.



The Tourist Society ACADEMIC unites a variety of clubs: for mountain climbing, water sports, skiing, cycling, rock climbing, mountaineering, speleology and cross-country walking. They attract large numbers of students, faculty members and administrative staff, who can take holidays in the university resort centres on the Black Sea coast, in the Balkan mountains, or along the bank of the Danube.

Medical Services and Insurance

There are many clinics, hospitals and private surgeries where you may ask for qualified medical help paying cash at quite reasonable rates. You may also get medical insurance in one of the numerous insurance companies in Bulgaria.

Other Useful Information

Public Transport: Trams, buses and trolley buses are the main public transport in Bulgaria. Tickets are sold at bus stations (bus stops), at newspaper stands or in some cases by drivers. Tickets should be perforated in the vehicle. There are also season travel cards for one day, one week or one month. The price of the ticket for public transport is 1.00 Lv. (about 0.50 Euro).

Taxi: There are many taxis in Ruse, provided mostly by private firms. Information about the firm and charge rates (day and night) can be seen on stickers on the front or rear windows of the car. Charge rates for 1 kilometre are between 0.70 and 0.90 Lv. (about 0.35–0.45 Euro).

Money Exchange: Popular currencies in Bulgaria are the USD and EURO. Open hours of the banks are usually between 9.00 a.m. and 4.00 p.m. There are also a lot of foreign exchange offices.

Food Stores. Restaurants: All food stores work usually till 7.00 or 8.00 p.m., but there are also 24-hour open stores and stores that work on Saturdays and Sundays. Most foodstuffs, vegetables and fruit are sold at prices, similar to those in Western Europe. Restaurants offer highly varied prices depending on their category. In some small and inexpensive restaurants the price of a meal is about 10 Euro.

Phone Services: There are 3 large mobile network operators on the territory of Bulgaria and these are M-Tel, GloBul and Vivatel.: Pre-paid cards are available at the offices of the mobile operators. For international calls you may also use the services of the national post offices.

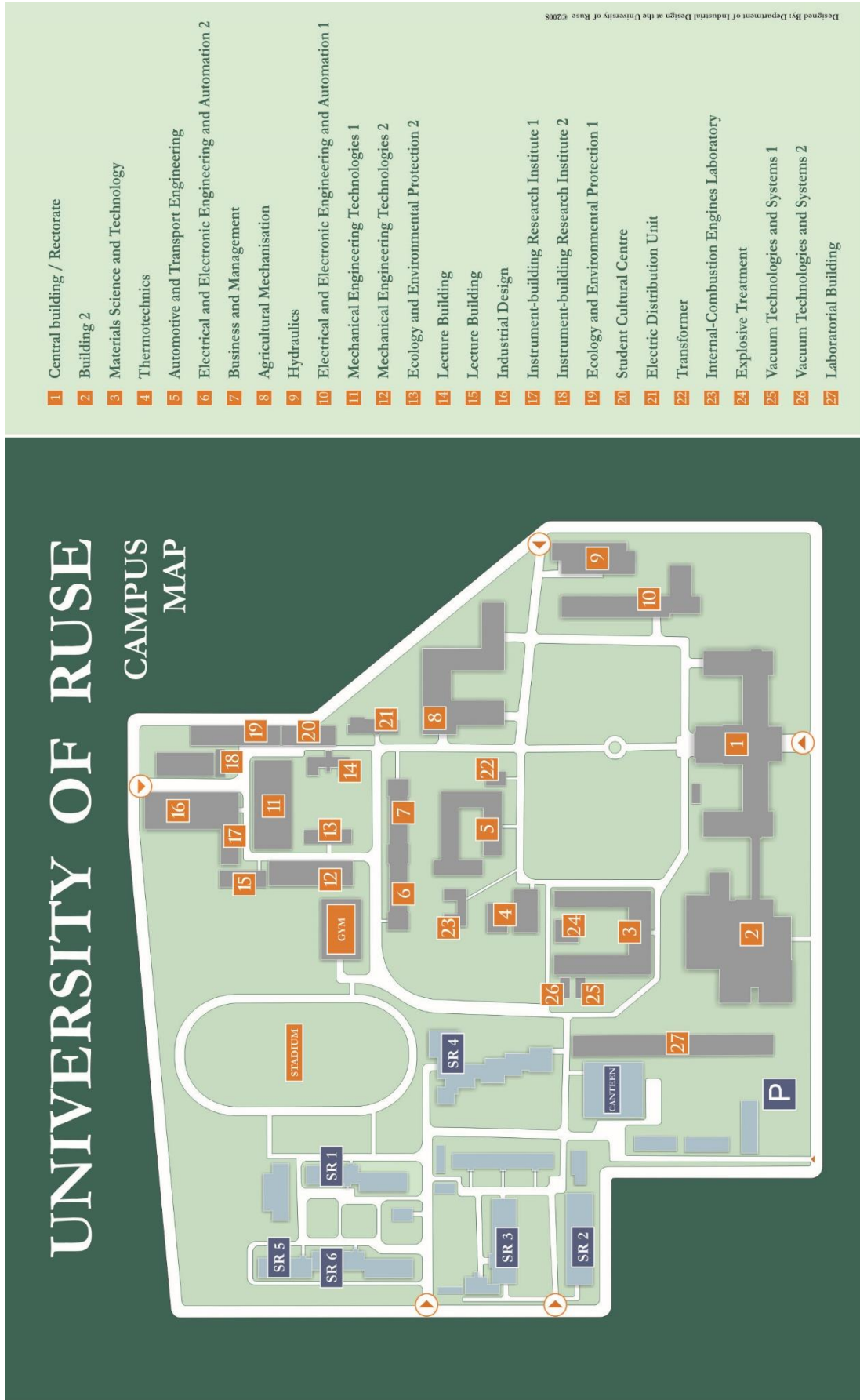
Bookshops and Photocopying Services: Copy services, books, textbooks, manuals and other training aids are offered in the University bookshop and stationery shop.

Student Organisations

The Student Council is a body which protects the interests of the students. It is elected by full-time bachelor, master and doctoral students and includes student representatives in the General Assembly of the University. The Student Council at the University of Ruse maintains an information centre, located on the first floor of the Central Building.



Campus Map of the University of Ruse



**INFORMATION
ABOUT
THE FACULTY OF
NATURAL SCIENCES
AND EDUCATION**



FACULTY OF NATURAL SCIENCES AND EDUCATION (Faculty of NSE)

The Faculty of Natural Sciences and Education was founded with Decision No. 413 of 11 October 1994 issued by the Council of Ministers of the Republic of Bulgaria.



The Faculty of Natural Sciences and Education has been awarded with the 2019 Award "Ruse" (category "Educational Institution, teaching and research staff") for its active educational and research work, for the training of pedagogical staff and on the occasion of its 25 years of its founding.

The faculty trains students and doctoral students in 4 professional fields: 1.2. Pedagogy, 1.3. Pedagogy of the education in ..., 4.5. Mathematics and 4.6. Informatics and Computer Science in 9 undergraduate programmes, 16 postgraduate programmes and 5 doctoral programs.

The structure of the faculty comprises of 5 departments: Pedagogy, Psychology and History; Bulgarian Language and History; Mathematics; Applied Mathematics and Statistics; Informatics and Information Technologies. The academic staff includes 61 lecturers hired under a main employment contract out of which: Professors – 3, Associate Professors – 28, Principal Assistant Professors – 28, Assistant Professors – 2 which all hold a PhD degree and one holds the scientific and research "Doctor of Science". Former academic staff, as well as prominent practitioners, with valuable long-term training and research experience also take part in the education of students in the faculty.

The faculty cooperates actively with educational, cultural and financial institutions, schools, business companies, software companies, institutes of the Bulgarian Academy of Sciences and other higher educational institutions on a national and international level. Cooperation agreements are signed with more than 60 universities and educational institutions from Germany, Romania, Slovenia, Slovakia, Hungary, Austria, Ukraine, Serbia, Bosnia and Herzegovina, Italy, Moldavia, Northern Macedonia, Albania, the Czech Republic, Montenegro, Poland, Spain, Turkey, Belgium, Estonia etc. Students have the opportunity to take part in academic mobility for study or practice in many prestigious European universities and to participate in educational and scientific forms in Bulgaria and abroad.

Факултетът извършва активна научноизследователска дейност в разнородни научни направления. Значима част от публикациите на академичния състав са в издания, индексирани от Web of Science и Scopus. Работи се по проекти по международни и национални научни програми, както и към националния и вътрешния фонд за научни изследвания. Факултетът е координатор на проекта Университети за наука, Информатика и Технологии в е-обществото (УНИТе) с цел Изграждане и развитие на център за върхови постижения в област Информатика и ИКТ по програма Наука и образование за интелигентен растеж.

The faculty participates actively in research activities in various scientific fields. A significant part of the publications of the academic staff are done in journals indexed in Web of Science and Scopus. Staff from the faculty is also involved in international and national projects developed under various research programmes, as well as in projects under the national research fund and the research fund of the University of Ruse. The Faculty is the coordinator of the *Universities for Science, Informatics and Technologies in e-Society* (UNITe) project which is developed under the Science and Education for Smart Growth Programme and which aims to create a functioning Centre of Excellence in the area of Informatics and Information and Communication Technologies (ICT).

The following scientific and research centres function in the faculty:

- St Dimitar Basarbovski Centre for Folklore, Literature and Linguistics – the scientific and research work is focused on aspects of folklore, ethnology, ethno-linguistics, ethno-semiotics and theory of literature.
- “Laboratory for the Research of the Linguistic Heritage of the writer Yordan Valchev” where the students work with the personal archive materials of the writer;
- A Scientific Laboratory on the Problems of Teacher Training at University Level – its scientific and research activities are focused on the study of the quality of the education process and its referencing to the European educational standards;
- Scientific laboratory for research and modelling of real processes.



Dean

Prof. Velizar Pavlov, D.Math.

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Vice-Dean of Research and Accreditation

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Vice-Dean of Education and International Relations

Assoc. Prof. Tsvetelina Harakchiyska

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Faculty ECTS coordinator:

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Department of Applied Mathematics and Statistics

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tel.: + 359 82 888 424, e-mail: vmicheva@uni-ruse.bg

**DEPARTMENTS
IN
THE FACULTY
OF
NATURAL SCIENCES
AND
EDUCATION**

**DEPARTMENT
OF
BULGARIAN
LANGUAGE,
LITERATURE,
HISTORY AND
ART**

Business Card of the Department



HEAD OF THE DEPARTMENT

Assoc. Prof. Mira Zhivodareva Dushkova, PhD

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<https://www.uni-ruse.bg/en/departments/BLLAD>

The Department of Bulgarian Language, Literature, History and Art was founded in 1994 with a decision of the Academic Council according to which the department became an integral unit of a new academic structure – the Faculty of Pedagogy. Nowadays the department is part of the *Faculty of Natural Sciences and Education* and is responsible for the education and training of the students enrolled in the *Bulgarian Language and History* undergraduate programme. At the same time the academic staff of the department takes part in the training of students from other undergraduate programmes – *Pre-primary and Primary School Education*, *Primary School Education with a Foreign Language* and *Social Pedagogy*. The following postgraduate degree programmes are offered by the department: *Linguistics and Didactics for Primary School Teachers of English*, *Linguistics and Didactics for Lower Secondary School Teachers of English*, *Modern Bulgarian Studies and Education*.



The academic staff of the department comprises 10 lecturers: four Associate Professors, five Principal Assistant Professors and two Assistant Professors with a PhD degree. Renowned Bulgarian researchers and scientists from other higher educational institutions or the Bulgarian Academy of Science have worked as guest lecturers at the department at different periods.

The research fields of interest in which the academic staff of the department delivers seminars are: Linguistics, Theory of Literature, Methods of Teaching Bulgarian Language and Literature, Methods of Teaching Music, Methods of Teaching Arts, Methods of Teaching English as L2.

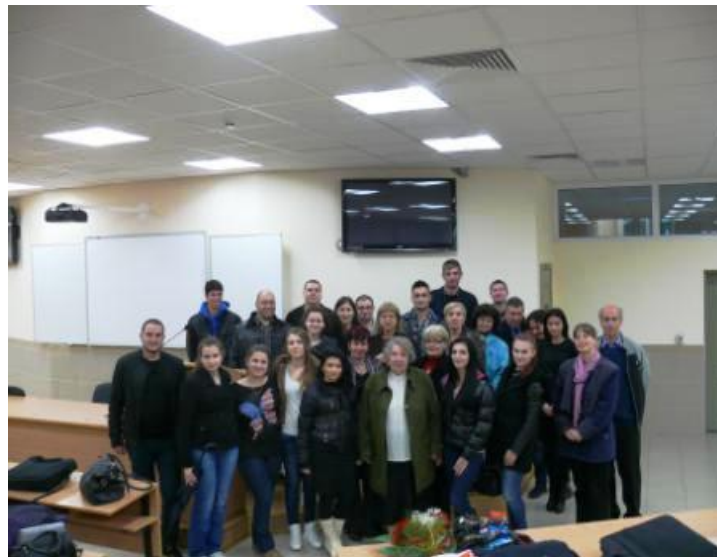
The members of the department conduct research in a wide area of linguistic disciplines: semiotics, syntax, language and culture studies (linguoculturology), text linguistics, Bulgarian literature, methods of teaching languages etc.

The department is the initiator of the *Arnaudov Readings* – a prestigious scientific forum which is attended by prominent researchers and scientists from Bulgaria and abroad. The materials from the readings are published in a series of volumes – the *Arnaudov Collection*. The event was organized for the first time in October 1998 when the Department of Bulgarian Language, Literature and Art initiated it in tribute to the Academician Mihail Arnaudov on the 120th anniversary of his birth. The forum has had 9 editions since 1998. The main organizers

of it are the Department of Bulgarian Language, Literature and Art and the St Dimitar Basarbovski Centre for Folklore, Literature and Linguistics along with the Regional Museum of History in Ruse.

The **St Dimitar Basarbovski Centre for Folklore, Literature and Linguistics** was founded in 1993 by members of the department as a meeting point not only for academics but for all those interested in research. This underlying idea of the centre aims to revive the longstanding Bulgarian tradition of the university being a focal point of scientific and cultural life in town. That is why the department has been a host of different meetings with authors and intellectuals from Ruse for many times. A huge project aimed at studying the work of literature writers and publishers in Ruse has started in cooperation with authors and intellectuals from the town in 2011.

The Department of Bulgarian Language, Literature and Art is an organizer of a large number of round tables devoted to the problems of Bulgarian spelling and speech norms, as well as to the works of many local authors. An essential aspect of the work of the department is the organization of many scientific seminars focused on different methodological problems of the history of literature, on the role of humanitarian studies in a digital world, on the development of the speaking skills of L2 young learners etc.



A central priority for the department is the involvement of students in research activities. A students' conference is organized every year where the academic staff of the department helps students in the preparation of their first scientific papers. The best papers are included in a conference volume. A new laboratory – **Laboratory for the Research of the Linguistic Heritage of Yordan Valchev** has been created in 2015 at the department. The main founders of this laboratory are lecturers from the department along with students from the *Bulgarian Language and History* undergraduate programme.

A competition entitled *Do you know Bulgarian?* is organized by the department for the students from the teacher training programmes. The competition is the place where students demonstrate their knowledge in the field of Bulgarian language – the speech and spelling norms of the language.



Two students' clubs function at the department: *Palette* and *Affect* which unite students with artistic skills from all programmes. The poetic skills and performances of young poets and short-story student writers are also encouraged.

The academic staff of the *Department of Bulgarian Language, Literature and Art* work devotedly not only **in the field of humanitarian studies, but also in the field of humanity**. Every year the department organizes a charity theatre performance for children of low socioeconomic status, while the young artists of the *Palette* club organize a Christmas market to help their colleagues of low socioeconomic status.



The Department of Bulgarian Language, Literature, History and Art has active international cooperation with the Volgograd State University with which it exchanges academic staff and students and with the Maria Curie-Skłodowska University in Lublin (Poland) where courses in Bulgarian Studies are offered.

**DEPARTMENT
OF
INFORMATICS
AND
INFORMATION
TECHNOLOGIES**

Business Card of the Department



HEAD OF DEPARTMENT

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The Department of Informatics and Information Technologies was established in 1981.

The Department staff consists of 19 academic (1 Professor, 4 Associate Professors, 11 Principal Assistant Professors and 3 Assistant Professors), and 4 support members.

The Department is responsible for the teaching of students enrolled for the professional field 4.6 Informatics and Computer Science of **Bachelor** and **Master** Degrees. It also conducts relevant courses of Informatics and Information Technologies to students of all Ruse University programmes, which differ by contents and curriculum hours.

The curricula of all programmes in Informatics and Computer Science have been worked out in accordance with the requirements of the modern software industry and the recommendations of the Association of Computing Machinery (Computing Curricula 2001).

The scientific research fields of the Department include:

- Modern trends in Software Engineering
- Visualization of algorithms
- 3-D computer graphics
- Modelling of cloths and physical objects
- Modelling of business architectures
- Information and expert systems
- Education of talented students and pupils



Students of the Informatics and Computer Science professional programme have the opportunity to actively participate in the scientific researches carried out at the Department. The results are presented on regular local scientific seminars and are submitted for publishing by national and international conferences, scientific journals and proceedings.

The academic staff of the Department is involved in various international educational and research programmes as **Tempus, Erasmus and Framework programmes of the EC**. The research projects contribute to raising staff's qualification. The educational projects allow the academic staff and students participate in academic exchange programmes at leading universities in Belgium, Hungary, Greece, Great Britain, Portugal, Turkey, Slovenia, Romania, etc.



For carrying out effective teaching process, scientific researches and student's individual work, the Department is in charge of 6 computer rooms provided with state-of-the-art computer equipment. Servers configured for students and teachers are linked to the University computer network giving a constant access to the Internet and to resources of general usage.

The quality of education is of permanent care for the department staff. The close contacts with companies from the software industry provide an opportunity to discuss different aspects of the programme curricula, as well as to present relevant company's activities and requirements for employing graduates who are wishing to join their work teams.

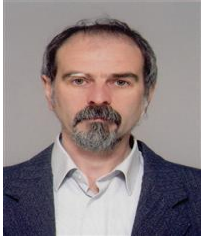


The Department conducts training in the Software Engineering master degree programme. It is one of the first programmes in Bulgaria that is jointly developed by the academic institution and an industrial software producer (Sirma Group).

Students, who have graduated Informatics and Computer Science programmes, find a wide range of working opportunities to make professional careers at software and other companies as software designers, developers or team members. They are provided with competency and skills for designing, developing and managing of software systems that allow them professionally grow and take leading positions at different levels in business structures of the software industry.

**DEPARTMENT
OF
MATHEMATICS**

Business Card of the Department



HEAD OF THE DEPARTMENT

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<https://www.uni-ruse.bg/en/departments/Mathematics>

The Department of Mathematics is responsible for the education and training in mathematics of all engineering and economic undergraduate programmes at the University of Ruse as well as for the education and training of the students from the undergraduate programme in Pedagogy of the Education in Mathematics and Informatics. The latter has been accredited in 2013 with an evaluation grade of 9.30 granted by the National Evaluation and Accreditation Agency. The Department of Mathematics is the successor of the Department of Algebra and Geometry and the Department of Mathematical Analysis since 2012.

The Department of Mathematics is responsible for the teaching and training of students in the following Postgraduate programmes:

- Postgraduate Studies in Information and Education Technology (since 2008);
- Postgraduate Studies in Information Technologies in Mathematics and Informatics Education (since 2010);
- Postgraduate Studies in Mathematical Modelling in Engineering (since 2011).

The following PhD programmes are accredited:

- Methods of Teaching Mathematics;
- Differential Equations;
- Mathematical Modelling and Applications of Mathematics.

The Department of Mathematics comprises of 19 lecturers and one administrative secretary. The staff members are as follows: 1 Professor, Doctor of Science, 8 Associate Professors, 6 Principal Assistant Professors (4 of whom are holding a PhD degree) and 4 Assistant Professors. 6 PhD students are trained at the department.

The mission and aims of the **Department of Mathematics** are to provide highquality training of students and PhD students, to work with motivated and gifted students, to develop efficient and internationally renowned research and to contribute to international integration.

The department conducts research in the areas of:

- Computer Algebra, The Structure Theory of Rings, Algebra with Polynomial Identity;
- Geometric Transformations and Computer Graphics;
- Differential Equations and the Application of the Differential Equations, Nonlinear Analysis;
- Mathematical Models in Economics and in the Natural Sciences;
- Teaching of Mathematics, Training of Gifted Pupils and Students, Mathematics Competitions;
- Mathematical and Computational Linguistics;
- Recognition Systems and Radiolocation.

The academic staff of the department take an active part in various international projects providing opportunities for research and exchange of teaching staff and students with higher educational institutions from Austria, Belgium, Canada, Cyprus, Estonia, Greece, Hungary, Israel, Italy, Poland, Portugal, Romania, Slovakia, Spain, the UK and the USA among others.

The teaching staff at the department organizes a variety of forums such as the International Conference "Numerical Methods and Applications", the NODDEA International conference and seminars, competitions in Mathematics and Olympiads in Mathematics and Informatics. Students who work under the supervision of the lecturers from the department are awarded with certificates and medals which recognize their achievements as a result of their participation in Olympiads, competitions and conferences.



The Department of Mathematics cooperates with other research institutions working in the area of Mathematics such as the *Institute of Mathematics and Informatics at the Bulgarian Academy of Science* and departments from other universities on national and international level.

**DEPARTMENT
OF
PEDAGOGY**

Business Card of the Department



HEAD OF DEPARTMENT

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The Department of Pedagogy is the new name of the Department of Pedagogy and Social Science since 2002. The latter was established on 17.06.1998 after uniting two departments – the Department of Pedagogy and the Department of Social Sciences. The Department of Pedagogy was the older of these two and was founded in 1966 as a substructure of the former Institute for Pre-school and Primary School Teachers. The foundation year of the Department of Social Sciences is 1992 when it became part of Angel Kanchev Higher Technical School. In 1994 both departments became independent units of the Faculty of Education of the “Angel Kanchev” University of Ruse.

The Department staff comprises 12 academic members (1 Professor, 6 Associate Professors, 5 Principal Assistant Professors) and one administrative secretary. 12 PhD students are working over dissertation theses at the Department.

The Department is accredited to train students in Undergraduate and Postgraduate study programmes.

The Department of Pedagogy, Psychology and History is responsible for the Undergraduate studies in:

- *Pre-school and Primary School Education;*
- *Primary School Education with a Foreign Language;*
- *Social Pedagogy.*

and the Postgraduate studies in:

- *Social and Pedagogical Work with Children and Families;*
- *Pedagogical Prevention and Probation Practices;*
- *Pre-school and Primary School Education (for graduates holding a BA or MA level);*



The academic staff is involved in the teaching process of students in the following **undergraduate study programmes:**

- Bulgarian Language and History;
- Mathematics and Informatics;
- Physiotherapy;
- Social Activities;
- Law.

The academic staff works in the following scientific research fields:

- Modern Educational Technologies for Working with Pre-Primary and Primary School Pupils and Comparative Education;
- Theory of Education;
- History of Pedagogy and Bulgarian Education;
- Social and Special Pedagogy;
- Pedagogical and Psychological Research;
- Ancient History and Thracianology;
- History of Religion and Cultural Studies;
- National Liberation Movements in the New Bulgarian History, etc.

Students trained by the academic staff of the **Department of Pedagogy** eagerly participate in the research activities performed at the department, thus gaining deeper knowledge and competences in specific research areas.



The students' club "Preserve the Bulgarian Heritage and Traditions" has been functioning since 2005 under the supervision of the academic staff.

By taking part in this club the students learn to value the cultural and historic heritage of the Bulgarian people. They participate in archeological excavations; terrain, archeological, historical and ethnographical research, expeditions for preserving cultural monuments, etc.

The Department of Pedagogy has bilateral agreements with organisations like:

- The Pedagogical Faculty of the Piteshti University in Romania, the Faculty of Education, ABO Academy, Finland – for exchange of academic staff and students and for exchange of insights on various pedagogical practices, as well as participations in scientific events;
- the Taraclia State University of the Republic of Moldova whose students are trained annually at the University of Ruse;
- Universities in Greece and Belgium where students and PhD students spend one semester for study, traineeship or research under the Erasmus+ program.





The modern facilities and premises, the up-to-date curricula, the digital teaching materials and the potential of the academic staff guarantee the high level of the teaching process offered by the **Department of Pedagogy**.

**DEPARTMENT
OF
APPLIED MATHEMATICS
AND
STATISTICS**

Business Card of the Department



HEAD OF DEPARTMENT

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The Department of Applied Mathematics and Statistics was established in 1981.

The Department trains students in the following undergraduate programmes:

- Engineering in the field of Applied Mathematics and Statistics;
- Economics in the field of Mathematics Applications and Statistics in Economics;
- Mathematics and Informatics and Informatics and Information Technologies in the fields of Numerical Analysis, Probability Theory And Statistics, Operations Research, Optimization Methods, Mathematical Texts Processing Systems, Introduction to the Numerical Computing Environment MATLAB;
- Kinesitherapy and Occupational therapy in the field of Medical Statistics.



The scientific research of the Department of Applied Mathematics and Statistics includes the following scientific areas:

- Mathematical Modelling;
- Computational Mathematics;
- Operations Research;
- Differential Equations;
- Programming Systems;
- Statistics;
- Psychology.

The Department members have scientific publications predominantly in the fields of Numerical Analysis for Differential Equations, Linear Algebra Numerical Analysis, Algorithms Stability, Optimization Methods, Statistical Methods in Engineering and Social Investigations, Programming Systems for Mathematical Texts Processing, Multimedia Presentation.

The department cooperates with specialists from the Departments of Mathematics at:

- the St. Kliment Ohridski University of Sofia;
- the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences;
- the Beograd University, Serbia;
- the University of Miskolc, Hungary;
- the University of Ljubljana, Slovenia;
- the University of Ioannina, Greece.

UNDERGRADUATE PROGRAMMES

**UNDERGRADUATE
STUDIES
IN
INFORMATICS AND
INFORMATION
TECHNOLOGIES
IN THE BUSINESS**

PROFESSIONAL STANDARDS
OF A BACHELOR IN INFORMATICS AND INFORMATION TECHNOLOGIES IN THE BUSINESS

Degree Programme: **Informatics and IT in the Business**

Educational Degree: **Bachelor**

Professional Qualification: **Bachelor in Informatics and IT in Business**

Term of education: **4 years (8 terms)**

The main target of this study program is to graduate highly qualified specialists-bachelors in Informatics and IT in Business for the needs of the businesses, state and local administration and other organizations.

The professional intent of bachelors in Informatics and IT in Business is to work as applied programmers, supervisors, administrators of databases, system administrators, professionals for computer technologies implementation in the administrative-managerial, planning-prognostic and financial-accounting spheres.

Bachelor-graduates of Informatics and IT in Business are provided with professional skills and language culture in the field of Informatics and IT, as well as competencies for using economic-mathematical models for optimizing industrial, financial, business processes. The professional qualification is guaranteed by the well-balanced proportion of basic courses in Mathematics, Applied Informatics and Economics.

The study programme involves:

- **Basic courses** in the main branches of Informatics and IT, foreign language, mathematics, economics, and commercial law bases;
- **Specialized** courses covering due knowledge on computer architectures, network communications, image processing, multimedia systems and technologies, web design, etc. included in groups of elective subjects;
- **Acquisition of practice-oriented knowledge and skills** for using modern software products.

Bachelors of Informatics and IT in Business will be able to:

- Quickly adjust to any working environment and creatively apply the knowledge gained;
- Analyze the necessity of automation of relevant firm's activities and suggest adequate software products for the purpose;
- Design and develop or adapt relevant software products to the needs of concrete applications, working in teams with other IT professionals of the company;
- Design, implement and administrate computer networks;
- Teach students at high schools if a teaching certificate has been awarded after completing due facultative courses.

CURRICULUM

OF THE DEGREE COURSE IN **INFORMATICS AND INFORMATION TECHNOLOGIES IN THE BUSINESS**

First year

<i>Code</i>	<i>First term</i>	<i>ECTS</i>	<i>Code</i>	<i>Second term</i>	<i>ECTS</i>
S00848	Introduction to Informatics	4	S00061	Computer Architectures	6
S00845	Calculus	6	S00854	Discrete Structures	6
S00850	Commercial Law	3	S01106	English – Part II	4
S00856	English – Part I	4	S00063	Economics	6
S00832	Linear Algebra and Geometry	6	S01076	Object Oriented Programming	8
S01034	Introduction to Programming	7			
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Second year

<i>Code</i>	<i>Third term</i>	<i>ECTS</i>	<i>Code</i>	<i>Fourth term</i>	<i>ECTS</i>
S01119	Operating Systems	6	S00861	Probability and Statistics	6
S00857	Computer Graphics	7	S00863	Computer Networks and Communications	6
S00859	Accounting	5	S01184	Non-procedural Programming	6
S00860	Human Resource Management	5	S00866	Finance	5
S01118	Data Structures and Programming	7	S01510	Data Bases	7
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Third year

<i>Code</i>	<i>Fifth term</i>	<i>ECTS</i>	<i>Code</i>	<i>Sixth term</i>	<i>ECTS</i>
S00867	Component Oriented Programming	6	S01215	Internet Technologies	6
S01197	Software Engineering	7	S00858	Fundamentals of Management	6
S00869	Communication Policy	6	S01212	Artificial Intelligence	6
S00871	Marketing	5	S00875	Multimedia Systems and Technologies	5
S00600	Operations Research	6	Elective courses (students choose one course)		
			S00882	Practicum on Software Engineering	3
			S00886	Practicum on Computer Graphics	3
			S00887	Workshop	3
			Elective courses (students choose one course)		
			0890	Information management	4
			0888	E-business	4
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Fourth year

<i>Code</i>	<i>Seventh term</i>	<i>ECTS</i>	<i>Code</i>	<i>Eighth term</i>	<i>ECTS</i>
S00892	Visual Programming Ms Office	7	S00903	Information Technologies in Management	4
S010019	Image Processing	6	S00084	Graduation self-study	4
S01446	Human-computer Interaction	6			
S01194	Information Systems	6			
<i>Elective courses (students choose one course)</i>			<i>Elective courses (students choose one course)</i>		
S01475	Programming for Internet	5	S01544	Visual Programming	4
S01481	Web Design	5	S01539	Geographical Information Systems	4
			S01538	Programming of Mobile Devices	4
			S00908	Computer Linguistics	4
			<i>Elective courses (students choose one course)</i>		
			S01546	System Programming	4
			S01545	Assembler	4
			<i>Elective courses (students choose one course)</i>		
			S00912	Computer Modeling	4
			SB10025	Programming Languages, Automation, Computing	4
			<i>Graduation</i>		
			S01553	State Exam	10
			S00083	Bachelor Thesis	10
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Total for the course of study: 240 ECTS credits

S00848 Introduction to Informatics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course is within the group of the compulsory subjects to be studied during the first semester by students from the bachelor degree programs of Computer Science, and Informatics and Information Technologies in Business. Its goal is to familiarize students with the essence, methods and tasks of Informatics, so that they can catch up with the required level of knowledge.

Course content:

Subject, methods and tasks of Informatics. Data structure and representation in computer. Principle of the program control. Files and file systems (FAT 16/32; NTFS). File formats. Files:- backups, compressing, cryptography, data bases, SQL. Numerical systems. Boolean algebra. Elements of combinatorics used in Informatics. Numbers representation. Machine codes. Representation of fractions formats. Symbols representation and code tables. John von Neumann's principle. Methods of programs design. Stages of the programming design. Testing methods. Algorithms.

Teaching and assessment:

Lectures are conducted two hours once a fortnight. At the practice sessions students are trained to work independently. They are encouraged to perform the assigned tasks by themselves and when necessary they are assisted and guided by the teacher. Students' activities are continuously assessed so that they get final marks in the end of the semester. Each student writes a paper on an assigned topic associated with the subject domain. In the end of the course the paper is submitted and defended. The continuous assessment includes the marks from two tests. The final grade is formed on the basis of tests results, the paper mark and the assessment of the practice sessions work.

Weekly classes: 1lec+0sem+0labs+2ps+se**Type of exam:** written**S00845 Calculus****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Mathematics
Faculty of Natural Sciences and Education**Lecturers:**Assoc Prof. Antoaneta Tileva Mihova, PhD, Department of Mathematics
tel.: 082 / 888 227, E-mail: amihova@uni-ruse.bgAssoc Prof. Yuliya Vancheva Chaparova, PhD, Department of Mathematics
tel. 082 / 888 226, E-mail: jchaparova@uni-ruse.bg**Abstract:**

The subject is basic for mathematical education in business informatics. The contents include an introduction to Mathematical analysis. The syllabus contains topics as: Sets and mappings, Real numbers, Basic elementary functions, Limits, Continuity of functions, Derivatives, Indefinite and Definite integrals and applications, Functions of two variables.

Course content:

Basic themes: sets and mappings, sets of real numbers, basic elementary functions, limits of sequences of numbers and functions, continuity of functions, derivatives of functions and applications in economics, indefinite and definite integrals and applications, functions of two variables.

Teaching and assessment:

The educational process is realized by lectures and practical exercises. In the lectures the educational material is theoretically presented and demonstrated by proper example problems. In the practical exercises the educational material understanding is controlled and skills for solving practical problems are developed. A term certification is obtained according to Interval rules for the educational activities. The exam test includes 6 problems and/or theoretical questions from the educational material.

Weekly classes: 2lec+0sem+0labs+2ps+se**Type of exam:** written

S00850 Commercial law**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Civil Law

Faculty of Law

Lecturers:

Prof. Georgi Stefanov Ivanov, MA, PhD, Department of Civil Law

tel.: 082 / 888 721, E-mail: givanov@uni-ruse.bg

Pr. Assist. Prof. Anna Nikolova, MA, Department of Civil Law

tel.: 082 / 888 434, E-mail: anikolova@uni-ruse.bg**Abstract:**

The Commercial law course acquaints the students with the basic enactments in the sphere of commercial and cooperative law; help them compare on theoretical level the different legal persons and institutions; help them discover the specific features of commercial law aiming to give them knowledge about the main questions of the course.

Course contents:

Topics of the lectures introduce to students with the subject matter, method of legal regulation, the system and the sources of commercial law, with the problems of commercial quality, deals with commercial organizations, commercial representation, one-man business and its court registration.

Teaching and assessment:

The lectures introduce to students with the subject matter, method of legal regulation, the system and the sources of commercial law, with the problems of commercial quality, deals with commercial organizations, commercial representation, one-man business and its court registration. Lectures are organized in parallel with seminars. Seminars require that the students come prepared on preliminary given topics. During seminars discussions are held, emphasis is put on important questions, normative acts are discussed, cases are solved and the students' preparation is assessed. The exam is a test which covers the topics from the general part of commercial law. The mark reflects the students' preparation and their participation in seminars.

S00856 English – Part 1**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Tsvetana Atanasova Shenkova, MA, Department of Foreign Languages

tel.: 082 / 888 532, E-mail: tsshenkova@uni-ruse.bg**Abstract:**

'English Part 1' students of "Informatics and Information Technologies in Business' comprises 45 hours of classroom work and provides basic skills for oral and written communication in the foreign language in view of the students' field of study. New vocabulary connected with the basic terminology of the specialized subjects is acquired. General topics related to the field of informatics and computer science are considered. Skills to elicit essential information from a text and write a summary are developed. Students are expected to prepare and give a short presentation on a chosen topic related to computing or IT. A prerequisite for 'English Part 1' is an English course taken in secondary school.

Course content:

Living in a digital age. Computer essentials. Inside a PC system. Buying a computer. Input devices. Interacting with your computer. Display screens and ergonomics. Choosing a printer. Devices for the disabled. Magnetic storage. Specifics of technical English grammar and vocabulary.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester. The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, giving a presentation and doing the tests. The final mark is based on continuous assessment.

S00832 Linear Algebra and Geometry**ECTS credits:** 6**Weekly classes:** 2lec+0sem+0labs+2ps+se**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:**Assoc. Prof. Emilia Angelova Velikova, MSc, PhD, Department of Mathematics**tel.: 082 / 888 848, E-mail: evelikova@ami.uni-ruse.bg

Pr. Assist. Prof. Ralitsa Vasileva - Ivanova, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The discipline aims to create in students basic notions, abilities and knowledge to work well with different linear objects and corresponding geometrical objects. It is a classical field of mathematics, having its own importance and at the same time is the basis for studying other mathematical, informatical and economical disciplines as Mathematical Analysis, Discrete Mathematics, Optimization, Programming, Computer Graphics, Micro- and Macroeconomics, etc.

Course contents:

Complex numbers. Matrices and operations with them. The Rank of a matrix. Determinants. Vectors. Coordinate systems. Vector spaces. Linear independence, bases and dimension. Systems of linear equations. Linear mappings and operators. Eigenvalues and eigenvectors of a linear operator. Inner product spaces. Orthogonality and Orthogonalisation. Bilinear and quadratic forms. Line equations in a plane. Equations of a straight line and a plane in space. Analytic presentation of curves and surfaces. Classification and canonical equations of second order curves and surfaces. Hyperplanes. Convex Sets.

Teaching and assessment:

The theoretical topics presented at lectures are considered at the practical exercises by solving problems using these topics. The individual students' work is controlled through a complex course work presented in parts on different sections. Two written tests take place. If the mark on them is equal or greater than Very good, the students receive the corresponding mark after an oral discussion on the respective syllabus section and it is not included in the exam. The exam is conducted in writing and includes problems and questions on theory. When forming the final assessment, the test results and the paper are taken into consideration.

S01034 Introduction to Programming**ECTS credits:** 7**Weekly classes:** 2l+0sem+0labs+3ps+ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge for developing algorithms and programmes in C++ programming language. The course focuses on the main data structures in the programming language C++ and on the main operations with that data. Special attention is paid on algorithm development being the basic step for writing programs. The practice sessions aim at acquiring skills for developing algorithms and programs.

Course content:

Algorithm development. Main data types and operation in C++ programs. Controlling structures – branches, choosing a variant, cycles. Arrays and arrays of arrays, pointers, one-dimensional dynamic and multi-dimensional arrays, character strings. Functions. Recursive algorithms and recursive functions.

Teaching and assessment:

The lectures concentrate on the process of algorithm development, testing and verification and their implementation in C++. Students are given suitable examples and independent tasks to practise writing programs and develop new programs. At the practice sessions students write programs and do tests. Each student prepares a course assignment including 5 tasks and presents them to the lecturer. Students get term validation after successful submissions of all assigned tasks. The examination is in a written form, but students defend their work orally. The test marks and the course work results are taken into consideration for the final examination mark.

S00061 Computer Architectures**ECTS credits:** 6**Weekly classes:** 2lec+0sem+0labs+2ps+se**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Computing

Faculty of Electrical Engineering, Electronics and Automation

Lecturers:

Assoc. Prof. Milen Iliev Lukanchevski, MEng, PhD, Department of Computing

tel.: 082 / 888 674, E-mail: mil@ieee.org**Abstract:**

The course addresses architectural aspects of computer systems. Main terms and principles in computer architectures are discussed as well as organization of computations. Modern computer architectures are presented analytically and comparatively. Memory hierarchy and input-output subsystem structure are shown as well. Simulations and real systems are used at the seminars to gain more deep understanding.

Course content:

Computer Architecture Principles. Basic Components. Historical Perspective. Types of Computer Architectures. Computer System Base Structure. Accumulator, Stack and Register Architectures. IA32 Architecture. Working Modes. Computer Memory Hierarchy. Input-output System.

Teaching and assessment:

The lectures introduce main theoretical topics. Each group of lectures ends with conclusion of material and formulation of problems. At the seminars simulations and real systems are used putting lectures to practice. Each seminar begins with formulation and analysis of problems. At very end the students are asked to summarize in written form their results. The information materials needed are given in electronic form to the students.

S00854 Discrete Structures**ECTS credits:** 6**Weekly classes:** 2lec+0sem+0labs+2ps+se**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Algebra and Geometry

Faculty of Natural Sciences and Education

Lecturers:**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics**tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg

Pr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Abstract:**

The course is basic for students of Informatics and Information Technologies in Business programme. Its incoming course links are with General Algebra and Geometry. It is closely related with Logic programming, Data structures, Computer graphics, Languages, automata & computing.

Course content:

Finite and countable sets. Properties of Integers – comparison, divisibility. Recurrent equations. Binary and bullean functions. Oriented graphs and finite automata. Recursive functions. Turing machines

Teaching and assessment:

The course material is presented at lectures, demonstrated with examples and practice-oriented applications. At practice sessions students gain skills for working independently over assigned tasks. The course work assigned develops students' knowledge for solving different problems and practice oriented tasks. The course work is evaluated using a score table (0 to 20) that is taken into account for the final grade. Students are exempted from sitting for an exam if the continuous assessment results are very good or excellent and that grade will be considered as the final grade.

S01106 English – Part 2**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Tsvetana Atanasova Shenkova, MA, Department of Foreign Languages

tel.: 082 / 888 532, E-mail: tsshenkova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps**Type of exam:** written and oral**Abstract:**

'English Part 2' for students of 'Informatics and Information Technologies in Business' extends the foreign language competence of students to cope with specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Authentic texts are used to bring the learners closer to scientific style. Collocations with frequently used terms and notions are considered. Students prepare and give team presentations.

Course content:

Storage devices (optical discs and drives, flash drives); The operating system; Word processing; Spreadsheets and databases; The Internet and email; The Web; Chat and conferencing; Internet security; Graphics and design.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester. The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, participating in a team presentation and doing the tests. The final mark is based on continuous assessment.

S00063 Economics**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**

Department of Economics

Faculty of Business and Management

Lecturers:

Assoc. Prof. Emil Georgiev Trifonov, MEcon, PhD, Department of Economics

tel.:082 / 888 557, E-mail: etrifonov@uni-ruse.bg

Assoc. Prof. Nataliya Todorova Nedelcheva, MEcon, PhD., Department of Economics,

tel.: 082 / 888 416, E-mail: nnedelcheva@uni-ruse.bg**Weekly classes:** 2lec+2sem+0labs+0ps**Type of exam:** written**Abstract:**

Economics is a fundamental economic discipline that examines the general principles and problems of contemporary market economy at micro- and macro level. Thus, it gives knowledge of the economic system, the alphabet and grammar of economic language, and as a basis for the rest economic disciplines, it develops the economic culture that finds expression in skills for correct orientation and independent choice in the market environment. These characteristics make the discipline a necessary unit to every economic education that pretends to have academic disposition.

Course content:

Introduction - Economic System and Fundamental Economic Theory. Basic questions towards every economy. Market Mechanism. Public Sector and Tax System. Demand and Supply at the Individual Markets. Consumer Demand and Behaviour. Production, Costs, and Revenues of the Company. Imperfect Competition and Supply. Pricing of Production Factors. Gross Domestic Product and Economic Growth. Economic Cycle, Unemployment, and Inflation. Macroeconomic Equilibrium. Fiscal Policy. Monetary Policy. Foreign Economic Policy in the Open Economy.

Teaching and assessment:The lectures present the logic of the discipline principles and illustrate it by appropriate examples of the economic reality in Bulgaria. The seminars are based on the lectures and synchronized with their consistency. There are two continuous assessments in test form during the seminars. The active form of the tuition in Economics is an assignment which is submitted in the first week of the course during the seminars and represents a particular problem of Microeconomics or Macroeconomics that must be elaborated in written mode. Countersign in the discipline is given to students that have been present at the two continuous assessments. The final assessment of the student is calculated as average arithmetic sum of the results of the two continuous assessments and the assignment. Students that have poor marks on the two continuous assessments and/ or the assignment have to take written supplementary examination.

S01076 Object Oriented Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bgAssoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course is a continuation of the course "Introduction to programming". It focuses on the main concepts of object-oriented programming. The programming language C++ is studied in detail and especially the object-oriented part. Classes and objects are studied being the main categories, as well as the main concepts for working with them. The practice sessions aim at acquiring skills for developing object-oriented programs. The programs are implemented using Borland C++.

Course content:

Classes and objects. Components of classes – data members, functions' members, constructors and destructors. Objects and functions. Friends of classes. Derivatives of classes, inheritance. Streams. Pre-defined operators.

Teaching and assessment:

The lectures give the principles for development of algorithms using classes and objects, as well as their implementation in C++. They are supported with lots of exemplary programs and students have to independently modify the examples and write similar programs for training themselves in programming. At the practice sessions students write programmes, verify them and do tests. Student's assignment includes two problems for independent work that has is defended and evaluated on submission. The term is validated for students who defend successfully the assignment.

S01119 Operating Systems**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: voinohovska@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge and skills about the main principles of design and functioning of the operating systems. At the lectures the theoretical material is illustrated with examples from different modern OS. The workshops are based on the two most widespread OS: Windows and UNIX. Their organization and way of operation are addressed and compared.

Course contents:

Introduction to OS. OS classification. Structure of OS. Processes and threads. Interaction between processes. Parallel processes. Synchronisation. Solutions to classical problems. Mutual blocking. CPU management. Planning algorithms. Memory management. Virtual memory management and protection. Device management. Organization of I/O devices. File system management. Functions and structure of the file system. Multimedia OS. Distributed systems. Protection and security in OS.

Learning and assessment:

The lectures are 2 hours per week and the theoretic material is delivered at the lectures. The workshops take place in computer-equipped labs under the lecturer's supervision on the topics shown above. At the workshops the students can strengthen the knowledge given at the lectures by discussing the features of particular OS and running examples. The students' knowledge is continuously assessed at the workshops with tests. The final grade is computed taking into account the continuous assessment at the workshops and exam.

S00857 Computer Graphics**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bgAssoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course "Computer graphics" have to familiarise the students with the basic principles of developing and working of interactive computer graphic systems and to give them the knowledge, which are necessary for development of program systems for geometrical modelling of objects and graphic documents, using computers. Main principles and approaches of visualization of 2-D and 3-D objects are discussed.

Course content:

General information about computer graphics. Structure of interactive graphic systems. Peripheral devices for computer graphics. Architecture of up-date raster graphic displays. Basic graphic plain and 3-D space transformations. Matrix description. Composition of transformations. 3-D objects plain projections. Object description in graphic systems – models. Approximation and modeling of plain curves – interpolation, cubic splines, B-splines, Besie's curves. Organization of interactive work in computer graphic systems. Graphical users' interface. Computer graphics color, colors' models.

Teaching and assessment:

The course comprises lectures and workshops. The main material is delivered at the lectures. At the practice the students solve problems from the theoretic material and develop programs using suitable program software (Borland Pascal, Borland C++, Delphi, Visual C++). The final mark is composed from the mark of continuous students work through the semester (30%) and the exam result (70%).

Weekly classes: 2lec+0sem+0labs+3ps+se**Type of exam:** written**S00859 Accounting****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Economics
Faculty of Business and Management**Lecturers:**Assoc.. Prof. Ivanka Borisova Dimitrova, MA, PhD, Department of Economics
tel.: 082 / 888 704, E-mail: idimitrova@uni-ruse.bg**Abstract:**

The course aims to give students basic theoretical knowledge and enables them to create and use accounting information. During acquiring accounting learning students can use knowledge from the subject "*Economics*". Students can use the obtained knowledge from the "*Accounting*" course in learning some other subjects: "*Information Systems Management*", "*Finance*", "*Computer-aided accounting*", etc.

Course content:

The course covers the following topics: Nature and characteristics of Financial Accounting; Object and method of Accounting; Accounting of main accounting projects: fixed assets and short-term assets, expenses, incomes, financial results, capitals; Annual reports and their usage for analysis of firm's financial results and firm's efficiency.

Teaching and assessment:

Teaching is conducted by means of lectures, seminars and controlled individual work. By lectures students are informed of theoretical bases of Accounting. The seminars are designed to provide skills for accounting solutions of practical cases in the enterprise's activity and making financial reports. The semester validation requires presentation and defence of the course work as required as well as regular attendance of seminars. The final mark is formed from the results of the continuous assessment, the paper and the written exam.

S00860 Human Resource Management**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**Department of Management and Business Development
Faculty of Business and Management**Lecturers:**Assoc. Prof. Emil Nikolov Kotsev, MA, PhD, Department of Management and Business Development
tel.: 082 / 888 715, E-mail: ekotsev@uni-ruse.bg**Abstract:**

The course aims to give students of specialty "Informatics and Information Technology in Business" basic knowledge of human resource management. Students acquire knowledge of principles, methods and tools applied in practice to effectively organize and motivate human resources. In mastering the curriculum, students use knowledge obtained from the subjects of Economics, Fundamentals of Management and Organizational Behavior. The knowledge of HRM is applied to familiarize students with business practices.

Course content:

The training covers the following areas: nature and characteristics of HRM. HRM system, Job design, planning of human resources, the movement of human resources, development and staff training, staff appraisal, remuneration, safety and security of labour, industrial relations.

Teaching and assessment:

Teaching is by lectures on fundamental questions and discussion and debate on specific issues from the syllabus. During seminars students develop their skills for solving problems in the design of organizational and governing documents. An important point is the development of paper on a given topic, which allows presentation of students. The validation of the semester requires regular attendance of classes. The final mark is based on the mark obtained from the oral test and defence of papers, student's participation in seminar classes and the scores of control tests.

Weekly classes: 2lec+2sem+0labs+0ps+se**Type of exam:****S01118 Data Structures and Programming****ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturer:**Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bgPr. Assist. Prof. Kameliya Ilieva Shoylekova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: kshoylekova@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge on complex data structures, data structure design algorithms and maintenance, application software. Reference practical cases are considered as data structure applications. Data structures and processing algorithms are considered conceptually at first and afterwards implemented in C++.

Course content:

Sorting and searching algorithms. Stack implementation and processing. Queue implementation and processing. Linear linked lists. Sorted lists. Binary tree. Binary search tree. Graphs. Presentations. Graph algorithms and applications.

Teaching and assessment:

The lectures focus on data structures in accordance with the syllabus. The accent is placed on data structure presentations, the applied basic operations and types of problems solved with the created data structure. Program implementation in C++. At practice sessions students design and test concrete practical cases using complex data structures. The course assignment is carried out individually in two stages as homework and it is presented in a pre-set time. Students do 3 tests on theory and practical cases during the term. The course ends with exam. The final assessment is formed on the basis of the results from the exam, course assignment and tests.

Weekly classes: 2lec+0sem+0labs+3ps+ca**Type of exam:** written

S00861 Probability and Statistics**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082/ 888 466, E-mail: eveleva@uni-ruse.bgPr. Assist. Prof. Elica Rumenova Raeva, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 424, E-mail: eraeva@uni-ruse.bg**Abstract:**

The subject aim is to make students acquainted with general concepts in probability and statistics for preparation, implementation and analysis of marketing investigations data. There are examples near to the practice. The course involves lectures and practical exercises held at computer laboratories. During the exercises students get to learn how to use the opportunities of the standard software product for statistical analysis SPSS (Statistical Package for Social Sciences).

Course content:

General concepts in statistics. One- and two-dimensional empiric distributions. Theoretical distributions. Large numbers principal. Sample and population. Confidence intervals (interval estimates). Sample volume determination. Statistical hypothesis check. Two-variable regression and correlation analysis. Empirical marketing investigations.

Teaching and assessment:

During the lectures the teaching material is presented theoretically. The goal of the practice classes is theoretical knowledge to find their practical application. Students get acquainted during these classes (held at computer laboratories) with the opportunities of the software product SPSS designed for processing and analysis of social sciences data. Course assignment is provided for each student.

S00863 Computer Networks and Communications**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bgAssoc. Prof. Georgi Hristov, MEng, PhD, Department of Telecommunications
tel.: 082 / 888 663, E-mail: ghristov@uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the principles and ways of connecting computers in networks as well as with the implementation of intercommunication between different levels of connections.

Course content:

Devices and topologies used in computer networks. Networks types. Physical level in networks. Theoretical bases and media for distance data transfer. Channel communication in networks – basic characteristics. Protocols. HDLC and PPP. Ethernet channel. Routine algorithms. Data streams loading and control within a network. Network level with IP protocol. Transformation of IP and MAC addresses. Class-free addressing. Routines in IP networks. Interior protocols – RIP and OSPF. Gateway protocol BGP. Group routine. Transport level. Protocols with sockets – procedures. Transport protocols TCP and UDP. DNS and NetBIOS systems for domain names in networks. DNS and NetBIOS server and clients. Name resolving. Session level in Internet – file transfer and FTP protocol. Application level. SMTP and POP3 protocols. WEB technologies in Internet. Hypertext and HTTP protocol. Security and authenticity in networks. Symmetric and asymmetric encoding. Public key and digital signature.

Teaching and assessment:

The lectures are 2 classes per week. Each student works independently on a course assignment that is evaluated. At the end of the course students make a test covering the lecture topics. The final grade is formed as 0.7 of the test mark, 0.1 of student's work during the practice sessions and 0.2 of the course assignment mark.

S01184 Non-procedural Programming**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bg

Assoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is to familiarize students with two non-procedural styles of programming – logical and functional. Students study the fundamentals of programming and a concrete programming language, representing the relevant programming style (functional – e.g. LISP, SCHEME or ML and logic – e.g. PROLOG). Non-procedural programming course is in close connection with the following courses – Introduction to Programming, Discrete Mathematics, Data Structures and Programming. It builds up the prerequisite for attending the next coming course “Artificial Intelligence”.

Course content:

Functional programming: Main principles of Functional programming (FP), Constructions and techniques of FP languages, Data structures of FP languages, FP applications; *Logic programming:* Main principles of Logic programming (LP), Constructions and techniques of LP languages, LP applications, Comparative analysis of LP and FP. During the practice sessions students develop programs.

Teaching and assessment:

The course involves lectures, practice sessions and an assignment. At lectures students learn the main principles of logic and functional programming, the syntax and semantics of programming languages, the techniques and style of relevant programming mode. Each student works on an individual task referring to compiling a program and its execution on a personal computer. Students use adequate programming languages (LISP, PROLOG, ML).

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:** written**S00866 Finance****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Economics
Faculty of Business and Management**Lecturers:**

Assoc. Prof. Kameliya Boyanova Asenova, PhD, Department of Economics

tel.: 082 / 888 416, E-mail: kassenova@uni-ruse.bg

Pr. Assit. Prof. Petar Penchev Penchev, PhD, Department of Economics

tel.: 082 / 888 347, E-mail: ppenchev@uni-ruse.bg**Abstract:**

The course introduces students to the nature and manifestation of finance as specific monetary relations that underpin the functioning of the fields and branches of economy. An emphasis is placed on the finance in companies and enterprises (where many University graduates will be working) with special attention paid to their capability to influence the parameters of economic growth. This course is a prerequisite for other economic disciplines such as Accounting and Economic and Financial Analyses.

Course content:

The course aims to enlighten the theoretical fundamentals of financing, the forms of its organization and application, the prerequisites for increasing financial effectiveness, the indicators for measuring and assessing financial results, etc.

Teaching and Assessment:

The teaching methods seek to develop methodological and heuristic abilities in students as well as to broaden their world outlook. For this reason a lot of efforts are made to overcome the empirical interpretation of the issues and achieve their acquired knowledge. To that end, the course is taught through lectures and also seminars where students can extend their knowledge of the subject by discussing and solving a variety of specific problems.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written and oral

S01510 Data Bases**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 464, 888 326, E-mail: katya@ami.uni-ruse.bg**Abstract:**

The purpose of this course is to familiarize students with the main principles of organising, creating and implementing of databases (DBs), database management systems (DBMS), and the information systems building. Students gain knowledge on important topics of database theory, the physical and logical organisation of DB, existing data models and the specificity of the models. The emphasis is on the relational database model.

Course content:

Main terminology in the DB theory, DBMS. Data models. Logical models. DB schema. Relational model. Relational DB schema. Relational algebra and relational calculus. Main operations with the data in the BD. Data manipulation languages. SQL. Queries. Interaction. Functional dependencies. Relational schema analysis. Normalisation and normal forms. DBMS. Operating principles. Transactions management. DB internal model. Physical organization and access methods.

Teaching and assessment:

The course comprises lectures, seminars, practice sessions and a course work. The lectures introduce important issues from DB organization, designing, building and application. During seminar classes students discuss problems related to DB theory and examine the practical applications. The practice sessions are intended to contribute to students' skills for designing individual DB and learn how to work in teams. The course work target is students to build up skills for DB designing. During the term students do 3 tests including theory and problem solution cases. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course work, the tests and student's activity during the term.

Weekly classes: 2lec+1sem+0labs+2ps+cw**Type of exam:** written**S00867 Component Oriented Programming****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vasilev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326, E-mail: vvelikov@ami.uni-ruse.bg**Abstract:**

The course familiarizes students with the principles of contemporary Windows and Internet programming, focusing on the diversity of tools and adequate methods of application. Students study the ideology and significant details of Java programming language being a traditionally applied component-oriented language technology suitable both for training and for industry application. The incoming course links of the discipline are: Introduction to Programming, Object-oriented Programming (OOP), Data Structures and Programming. Outgoing course links: Artificial Intelligence, Multimedia Systems and Technologies, Internet Technologies, Programming for Internet.

Course content:

After a concise introduction to the fundamental resources and tools of Windows and Internet programming, follows a time-limited acquaintance with basic language aids and structures that proceeds with detailed studying an important part of Java package structure and classes for realizing some essential Java possibilities.

Teaching and assessment:

The course represents integrity of lectures and practice sessions. Students' assessment is based on the results from the exam practice work on PC (70%), two tasks that are fulfilled as homework (10%) and the individual course work (20%) during the semester.

Weekly classes: 2lec+0sem+0labs+2ps+cw**Type of exam:** practical

S01197 Software Engineering**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course equips students with the required practical skills for developing large-sized software projects. It presents a collection of methods, techniques and tools, from which to select when trying to solve problems that are less well defined and larger than they have previously encountered. After studying this course the student can: analyze a problem so as to enable a computer model to be created; demonstrate competencies in designing, writing and testing software systems; work out relevant software documentation; make software cost estimation.

Course content:

Software and software engineering principles. Software service life models. Gunter model. Software Engineering Tools and Environments. Structural and object-oriented approach for software engineering. Contemporary approaches for software development. Program verification and validation. Software metrics. Software cost estimation. Boem model. Testing and debugging. Prototyping role - automation. Software documentation. Human role in software engineering. Software legislation aspects.

Teaching and assessment:

Students have to read the written material on lecture topics in advance. Some details are discussed and suitable examples are given. The seminars are intended for problem solving on topics and aim to deepen students' knowledge attained from lectures. The practice sessions are mainly for students' individual work. They solve problems from software engineering field. Each student develops a part of a given software system as a course work. The course ends with exam. The final grade is based on the results from the exam (50%), the course work (20%), practice sessions activities (15%) and seminar activities (15%).

S00869 Communication Policy**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Economics

Faculty of Business and Management

Lecturers:

Prof. Diana Antonova Antonova, MA, PhD, Department of Business and Management

тел.: 082 / 888 726, E-mail: dantonova@uni-ruse.bg

Pr. Assist. Prof. Prof. Milena Vasileva Todorova, MA, PhD, Department of Business and Management

tel.: 082 / 888 617, E-mail: mtodorova@uni-ruse.bg**Abstract:**

The goal of the course is to equip students with basic knowledge about the nature and the importance of the firm's communications policy; with the approaches, stages and issues of the practical firms' programmes developing for communicating with customers and public, as well as for demand and sales stimulating. Completing their education, the students should be able to: Have an in-depth knowledge about the nature and the importance of the firm's communications policy; Be aware with the theoretical and applicable aspects of developing and implementing firms' strategies and campaigns for advertisements, direct marketing, personal sales, sales stimulating and public relations;

Course content:

Major sections of the subject: nature and importance of the communication policy; developing firm's communication policy; analysis of the communication process; defining targets and budget of firm's communications policy; advertisement – creative strategy and media planning; advertising through electronic broadcasting media, press etc.; other communications means; assessing the effectiveness of communication programmes and so on.

Technology of education:

Teaching is conducted by lectures and seminars, meetings with leading experts and controlled out-of-class activity for working out a report. Continuous assessment is performed by evaluation of two students' assignments during the seminar workshops. The results of out-of-class activity are also assessed. The term is considered validated, if the student has a minimum of 50% lecture participation, 100% seminars participation and has presented his report in time. The final grade is formed on the basis of: 80% of the exam, 10 % of the course assignment, 10 % of the continuous assessment.

S00871 Marketing**ECTS credits:** 5**Assessment:** exam**Departments involved:**

Department of Economics

Faculty of Business and management

Lecturers:

Assoc. Prof. Lyubomir Dimitrov Lyubenov, PhD, Department of Economics

tel.: 082 / 888 409, E-mail: llyubenov@uni-ruse.bg

Pr. Assist. Prof. Daniela Georgieva Ilieva, PhD, Department of Economics

tel: 082 / 888 412, E-mail: dgilieva@uni-ruse.bg**Abstract:**

The subject aims to introduce the students to the basic theoretical and methodological issues of marketing. Basic understanding of economic theory and the problems of world economics is a prerequisite for gaining knowledge of marketing. The subject supports the further study of methods and approaches to applying the marketing concept in managing business, which will be done in other subjects.

Course content:

Introduction to the subject marketing. Definition of marketing. Types and kinds of marketing. "Marketing mission" concept. Marketing environment. Marketing information system. Strategic marketing planning and types of strategies. Factors, determining the choice of a marketing strategy. Production, marketing and stock policy. Consumer behaviour. Market segmentation. Marketing and life cycle. Main strategies in the area of stock policy. Nature, range and principles of the price policy. Price surveys in marketing. Realization of the price strategy of a company. Distribution policy of the company. Marketing logistics. Business communications in modern marketing. Advertisement and kinds of advertising policy tools. Organizing and running an advertising campaign.

Teaching and assessment:

The theoretical basics of the topics given at lectures are consolidated in seminars by doing tests and fulfilling tasks and there is also an individual multipart course assignment for students to practice working on their own. The students are allowed to sit for an exam after they have submitted their course assignments. The exam starts with students answering two questions in writing, after which there is an oral quiz.

S00600 Operations Research**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assist. Prof. Ivan Radoslavov Georgiev, PhD, Department of Applied Mathematics and Statistics

tel.: 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The course objective is students to be acquainted with the basic mathematical approaches and modern methods for solving, analyzing and interpreting of problems that arise in economics management. It is practically oriented. The material is suitably presented for students not skilled in mathematics. All examples and problems within the course are applicable in practice. During the practice sessions students get familiar with software applications used for solving sophisticated real problems.

Course content:

Main objectives and goals of the course. Mathematical models of operations. Efficiency and optimum conditions criteria. General statements of the linear optimization problem. Designing linear optimization models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the Linear Optimization Problem solutions. Grafical method for solving LOP. Simplex method. Duality of LO. The transportation problem. Multicriteria LO. Integer LO. Network analysis. Planning. Elements of queueing theory. Optimal management of inventory.

Teaching and assessment:

The teaching process comprises of lectures which contain numerous examples. The topics discussed at the lectures are illustrated with practice-oriented examples. Practice sessions focus on problems in connection with the lecture material. Special attention is given to the software package MATLAB for solving complicated and practice-oriented problems.

S01215 Internet Technologies**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg

Pr. Assit.Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 470, E-mail: mdimitrov@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: val@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the resources, application field and approaches of modern programming languages for Internet. The focus is laid on the diversity of programming environments and tools, as well as on the established and continually innovated technological practices. Students get familiarized with the capacities and tools of Java programming language for Internet. A quarter of the course duration is intended for studying the capacities and tools of the .NET Framework as well, stating the analogy of the practical philosophy between them. Another significant course objective is to provide students with primary knowledge and solid base for studying further the special Internet technologies fields. Incoming course links: Object-oriented programming, Multimedia systems and technologies. Outgoing course links: Programming for Internet.

Course content:

After brief introduction to the principle resources and tools of the Internet programming, students gain knowledge on a main part of Java packages and classes used for programming of Internet applications. They are also familiarized with the resources and tools provided in .NET Framework.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course work consists of two parts and requires solving of a practice-oriented problem or it is a modular extract from such a problem. The final grade is formed on the basis of the evaluation of both parts of the course work, but mainly depends on the result.

S00858 Fundamentals of Management**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Management and Business Development
Faculty of Business and Management**Lecturers:**

Assoc. Prof. Svilenova Svilenova Ruskova, кат. Department of Management and Business Development

tel.: 082 / 888 617, E-mail: sruskova@uni-ruse.bg

The course aims to provide students with some basic managerial skills and expertise. The teaching material is designed in accordance with the students' aspirations of getting theoretical knowledge in the field of organizations and fundamental, managerial functions. Theories and methods for planning, organizing, leading, and management control are introduced in the course. Students acquire practical approach to decision making. They analyze and review case studies to develop practical skills for their future career.

Course content:

The course includes the following topics: Management – theory and practice; Planning; Organizing; Leading; Management control, Decision Making, and Organization of Managerial Labour.

Teaching and assessment:

Some of the topics are explained through traditional lecture methods supplemented with visual aids. Appropriate examples clarify the subject matter of the lectures. The seminars and the lectures are organized in parallel. Students are expected to do their lecture readings, which enable them to participate in class discussions and to write a paper on a particular topic. The assistant professor carries out a continuous assessment and gives an average evaluation for the term, based on the overall student's participation during classes and the submitted paper. There is a particular emphasis on the practical application of the methods taught throughout the course. The overall evaluation is built of the participation assessment during the term and the exam grade.

S01212 Artificial Intelligence**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the possibilities, resources and application field for implementation of Artificial intelligence. Five main sections are studied: Heuristic search algorithms, Expert systems, Neural networks, Fuzzy sets, Genetic algorithms. Aiming to ensure basic knowledge, both in theoretical and practical parts. Incoming course links: Object-oriented programming, Non-procedural programming, Data structures and programming and Algorithm Development and Analysis.

Course content:

Fundamentals, means and philosophy of the Artificial intelligence. Solving problems, Search strategies, Heuristics search algorithms, Knowledge presentation, Expert systems, Neural networks, Fuzzy sets, Genetic algorithms and application.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course task is an extract from a complex practice-oriented problem. The final grade is formed on the basis of the course task evaluation, but mainly on the result from the exam that is a written test.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:** written**S00875 Multimedia Systems and Technologies****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies.

tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bg

Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with multimedia basic components and the stages for developing multimedia applications (MMAs). Students study the foundations of HTML programming language and acquire skills for using modern systems and technologies in designing multimedia CD and Web-based applications.

Course content:

Multimedia – basic terminology. Standard carriers of multimedia information. Requirements and stages for developing MMAs. Multimedia elements: text, graphical, sound objects and animation, file formats, compression, software. Author's systems for designing MMAs. Programming languages in author's systems. Introduction to HTML for the need of multimedia. Multimedia and internet – tools, text, images, stream sound and video. Virtual reality.

Teaching and assessment:

Lectures are conducted 2 hours weekly. Practice sessions are 3-hour classes and are held under the supervision of an assistant professor/instructor following the theory taught at lectures. In the beginning of the sessions students do a 5-minute brief test or oral questioning as feedback. Besides practice sessions, students have to work on individual course work in extra time. At the end of the course they do a written test covering the lecture material. The course ends with a continuous assessment grade formed as 0.5 of the test results, 0.1 practice session activities evaluation and 0.4 of the course work result.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:** written

S00882 Practicum on Software Engineering**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 326, E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course is included in the group of the 6th semester elective subjects for the degree programme Informatics and IT in Business and its objective is to consolidate the knowledge and skills gained in the foregoing compulsory course of the same name. Students apply the acquired knowledge and skills for developing programming systems and they practice working in teams. The accent is placed on the individual efforts for solving specific software problems. After studying this course students should be able to design and develop software systems; they should have practiced and learnt working in teams.

Course content:

Students get guidelines for developing individual course assignments on different topics. Technology of course work. Methods of evaluation. Forming work teams. Data and system models. Model description. Specification development. Software system design. User interaction design. Prototype system development. Prototype testing. Software documentation. Software cost estimation.

Teaching and assessment:

Students form work teams for developing a software project as a course assignment. Students work on project specification, design, data input, program testing, project description and defence. The course ends with a continuous assessment grade, formed on the basis of students' activities during the seminars (30%), the result grade of development the student's part of the team course assignment (40%) and project defence

S00886 Workshop on Computer Graphics**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain practical skills on the theoretical knowledge introduced in the course Computer Graphics. Students learn the operating principles of widespread software products for computer graphics and obtain practical skills for using these products. The focus is also laid on the main methods for graphical data exchange from different software products, as well as on the way of working both with vector and raster images.

Course content:

Destination and basic capacities of modern software products for computer graphics. Operating with texts in graphical systems. Basic graphical primitives, parameters, geometric transformations. Operating with curves – free-hand-drawing and Bezier curves. Organization of working with layers, possibilities, basic parameters of layers. Operating with raster images in systems for vector graphics. Obtaining raster images. TWAIN interface. Processing of raster images. Raster file formats. Practical aspects for choosing file format and compression coefficient; image quality.

Teaching and assessment:

The course is conducted through practice sessions. Students are involved in discussions regarding theoretical and practical aspects of the topic. The lessons are held in computer labs for practical application of theoretical knowledge that is commented in advance. The individual course assignment is a complex task requiring the usage of computer graphics products.

S00887 Practicum**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist.Prof. Katerina Georgieva Gabrovska-Evstatieva, PhD, Dept of Informatics and Information Technologies,

tel: 082 / 888 470, E-mail: kgabrovska@ami.uni-ruse.bg**Abstract:**

During this practicum students design an IT Information system based on the knowledge gained from the subjects studied to that stage. The organization of the individual student's work within the Practicum follows the recommendations of the Rational Unified Process (RUP). The course objective is students to be able to design and develop artifacts for phase elaboration within the frame of a complete software system.

Course content:

Project assignment to a team. Roles and tasks of each team member. Project planning: requirements, activities, classes, diagrams sequence and teams collaboration. Specification of the data model. Schedule of task testing, test cases and test scripts. IT system development. Tests and test documentation. Project completion and submission.

Teaching and assessment:

The practice and seminar sessions aim to deepen students' knowledge on subjects concerning the development of IT systems. Each student is allotted an individual task and is trained to develop relevant skills for phase collaboration. The continuous assessment is based on student's work during the practice sessions (40%), the results from the team task fulfillment and defence (30%) and the results from the project phase representation (30%).

Weekly classes: 0lec+2sem+0labs+2ps+1cw**Type of exam:** written**S00890 Information Management****ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Management and Business Development
Faculty of Business and Management**Lecturers:**

Assoc. Prof. Aleksandar Petkov Petkov, MEcon, PhD, Department of Management and Business Development

tel.: 082 / 888 776, E-mail: apetkov@uni-ruse.bg

Assoc. Prof. Anton Nedyalkov Nedyalkov, MEcon, PhD, Dept. of Management and Business Development

tel.: 082 / 888 520, E-mail: anedyalov@ecs.uni-ruse.bg**Abstract:**

The course is presenting knowledge in area of principles of system's management and technologies of information services. They are presenting relationships between management and information, importance of the information management to the decision support process, and business

Course content:

Introduction to the information management. Range of information management and information resource. Technology environment developing. Information systems developing and maintenance. Information system planning. Organizational structure developing and maintenance. Information system planning. Organizational structure developing. Using and exploring of the information system. Information policy developing and innovation programs using. Staff management. Investment management. Security system developing.

Teaching and assessment:

Course teaching is organized by lecturers, seminars, and individual tasks. Samples form practice of the information management are presenting during the lectures. Lecture's topics and case studies are discussed during the seminars. The students must learn the lectures and handouts presented in the course's web site in advance.

Weekly classes: 2lec+1sem+0labs+0ps+ca**Type of exam:** written

S00888 E-business**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Management and business development
Faculty of Business and Management**Lecturers:**Assoc. Prof. Aleksandar Petkov Petkov, MA, PhD, Department of Management and business development
tel.: 082 / 888 776, E-mail: apetkov@uni-ruse.bg**Abstract:**

The course is presenting knowledge in area of contemporary technologies to organizing business by Internet. The main object is to present expanding possibilities of electronic communications and organizing business by Internet technologies.

Course content:

E-business. E-trade. Categories in e-business and e-trade. Internet marketing. E-deliveries. E-export. Integration of e-business to the traditional business. Strategies in e-business. Security problems in e-business. E-signature. E-payments. E-governance.

Teaching and assessment:

Course teaching is organized by lectures, seminars and active form-course assessment. The lectures are presenting basic content and directions of e-business. Practical examples and case studies are used to help students to learn the topics. Attention of the students is keeping up by discussing questions. Seminars are organized in a computer lab. The students must learn the lectures and handouts presented in the course's web site in advance.

S00892 Visual Programming in MS Office**ECTS credits:** 7**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 888 645, E-mail: stzancov@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the programming language Visual Basic for Applications; to use its applications efficiently in MS office environment; to be able to develop their own applications. A prerequisite for studying it is the knowledge acquired from the course Mathematics in the 1st academic year as well as the Object-oriented programming. The knowledge and skills gained from this course are the basis for developing the assigned tasks and projects, as well as for preparing the diploma thesis and for successful future career.

Course content:

Introduction to VBA. Programming for MS office. VBA and objects in MS office. Data types. Macros creating and editing. Built-in functions and expressions. Commands for assigning. Commands for control. Arrays. Introduction to objects and collections. Procedures and functions. Projections and modules. Designing of interface. Menus. Dialogue windows. Elements of dialogue windows. Events. Methods.

Teaching and assessment:

The presentations delivered during the lectures focus on key topics and are illustrated with suitable sample programmes which are learned during the seminars. The continuous assessment evaluates the work of students during the practice sessions. The preparation of the course assignment requires from students to demonstrate their ability to work autonomously. Students also receive a grade on the course assignment. Students receive a total of 100 points for their work during the semester. In order to get the course validated students need to attend the lectures regularly, to participate actively in the practical sessions and to get at least 70 points, and to submit his/her course assignment successfully. The final mark is based on the results of the course assessment, the entrance level test, the work during the practical sessions and the grade on the course assignment.

SB10019 Image Processing**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: Tvassilev@ami.uni-ruse.bg

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the basic problems and principles of image processing. Special attention is paid on the methods for raster graphical image compression. The course themes refer to problems and tasks which are often encountered in practice on using digital images. The course helps students get profound knowledge and use the computer techniques in fields where the raster graphical images are applied, i.e. the computer graphics, robot vision, medical engineering, etc.

Course content:

Introduction to image processing. Hardware components of image processing systems. Basic terminology and principles for digital images processing. Rasterization, level quantization, digital image parameters. Image transformations. Image enhancement - spatial and frequency domain methods. Image restoration. Image segmentation. Representation and description. Texture. Principles of image recognition and interpretation. Digital image compression.

Teaching and assessment:

Students attend lectures and practice sessions. Students get individual tasks related to the lecture material. The algorithms are implemented in a chosen programming language and environment. Students apply free or licensed software for applying more complex methods of image processing and making comparative analysis of the results.

S01446 Human-Computer Interaction**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg**Abstract:**

The main objective is to familiarize students with the main principles, approaches and techniques for designing and developing human-computer interactions (HCI). The stress is placed on the project building and the testing methods of prototype development and evaluation, as well as on the psychological aspects of the HCI. Students are involved in discussions about the effects of human factors on interface designs and development of applied software; methods and techniques for user-centered and analysis-based structural design of interaction; HCI evaluation.

Course content:

Introduction to HCI. HCI components. The human aspects of HCI. Cognitive models for HCI. Visual perception and representation. Concentration and mental models. Interface metaphors and conceptual models. User interface design aspects. Principles and models of user-centered design. Structural design frame. Design supports. Principles and rules. Instructions, standards and metrics. Design costs evaluation. Evaluation role. Data accumulation – methods and techniques. Experiments and standardization. Expert assessments.

Teaching and assessment:

The course includes problem-oriented themes which are put forward for discussion. Practice session accent is place on the individual student's work. Students deal with solving problems related to designing and creating of HCI. Each student individually develops software user's interface of a software system as a course assignment. The course ends with an exam, formed on the basis of the test papers results (T_1 and T_2), the course assignment result (ca) and student's activities mark during practical sessions (ps) in accordance with the formula: $0,3(T_1+T_2)+0,4ca+0,3ps$.

S01194 Information Systems**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Katalina Petrova Grigorova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 464, 888 326, E-mail: kgrigorova@ami.uni-ruse.bg

Pr.Assist. Prof. Magdalena Hristova Andreeva, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 470, E-mail: magie@ami.uni-ruse.bg**Abstract:**

The course objective is to introduce the principles of designing, creating and maintaining of information systems. Students study the technologies for analysis and development of applied information systems, as well as for data exchange, management, monitoring and security. The course teaches the main statements and terminology of information system theory, the basic approaches for information systems development, as well as the principles of modeling processes and data. As a result from the practice, students are able to build up a complete information system.

Course content:

Data and information. System and information system in general. Information system model. Approaches for designing information systems. Information system service life. System analysis. Document movement charts. Block diagrams of data streams. Data dictionaries. Information system architecture. Information system using file servers. Information systems based on client-server architecture. Internet-based information systems architecture. Information systems management.

Teaching and assessment: The course includes lectures, practice sessions and a course assignment. Lectures are often discursive. Practice sessions are conducted with student teams on tasks assigned in advance. At the end of the semester students defend the information system developed. During the semester students take three tests including theory and problems. The course ends with an exam. The final grade is formed on the basis of the results from the exam, the course assignment and the tests.

S01475 Programming for Internet**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 470; E-mail: mdimitrov@ami.uni-ruse.bg**Abstract:**

The course is studied as Elective subject and its objective is students to be familiarized with the resources, principles and approaches of the modern programming for Internet. The focus is laid on the diversity of programming environments and tools, as well as on the established and continually innovated technological practices. Students get familiarized with the capacities and tools of .NET Framework for Internet programming. Another significant course objective is to provide students with primary knowledge and solid base for studying the .NET Framework, as well as the special Internet technologies fields in a more profound way. Incoming course links: Object-oriented programming, Multimedia systems and technologies, Internet Technologies. The knowledge gained from attending the course is helpful for preparing diploma projects and future work careers.

Course content:

After brief introduction to the principle resources and tools of the Internet programming, students gain knowledge on the basic language tools and constructions of C# and the focus is laid on studying the programming and testing environment, as well as on a main part of the package structure and classes for implementing basic applications of the .NET Framework.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course assignment requires solving a practice-oriented problem or it is a modular extract from such a problem. The final grade is formed on the basis of the evaluation of the course assignment and the results from three test papers which are to be implemented on computer in the integrated environment.

S01481 Web Design**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc.Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E- mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the elements for designing a website and web-based applications. The prerequisite for studying the course is the knowledge gained from the following courses: Object-oriented Programming, Software Engineering, Multimedia Systems and Technologies, Internet Technologies

Course content: Functionality and efficiency of a website. Problems and solutions. Website designing process. Resources control. User-oriented design. Target group, platforms. Data structuring. Contents arrangement. Components, techniques, restrictions, problems. Design templates. Basic principles for programming a website. Website elements. Application of website coding. Making choice for using proper tools in designing and coding of web-based application. Testing and evaluation of web-based application, web standards, security, search engines, products used for designing websites, development of the Web. Reconstruction of media space.

Teaching and assessment:

The course is conducted through lectures, practice sessions and a course assignment. The lectures give theoretical knowledge on the main requirements and statements for making preliminary preparation, data gathering, design features and development of web-based application. Practice sessions are held in computer labs where students apply theoretical knowledge into practice. The course assignment is individual and it is prepared as homework. Students get tutorials for developing the course tasks.

S00903 Information Technologies in Management**ECTS credits:** 4**Assessment:** exam**Методично ръководство:**Department of Management and Business Development
Faculty of Business and Management**Lecturers:**Assoc. Prof. Aleksander Petkov Petkov, MA, PhD, Department of Management and Business Development
tel.: 082 / 888 776, E-mail: apetkov@ecs.uni-ruse.bgAssist. Prof. Miroslava Ilieva Boneva, MA, PhD, Department of Management and Business Development
tel.: 082 / 888 776, E-mail: mboneva@uni-ruse.bg**Abstract:**

The course builds up student's knowledge in the field of management and technologies needed for its information provision. The focus is placed on problems rising in the business sphere. Students study contemporary management technologies, the dependence and synchronization between management needs of information and the technologies for its delivery.

Course content:

Information technologies in business. Information system analysis. Information technologies in management of business organizations. Enterprise resource planning and management systems. Marketing information systems. Manufacture information system. Finance information system. Human resources management system. Decision support information system. Executive information system. Database of management information system.

Teaching and assessment:

The lecture material provides due theoretical knowledge for carrying out the practice sessions. Students practice specific techniques for management data gathering, processing and analysis. They get acquainted with different structures of management information systems, designing technologies and application. Practice sessions are held in computer labs, where students gain knowledge on the main functions of the modern information systems and work out exemplary solutions for management data processing.

S01544 Visual Programming**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the programming language “Visual Basic for Applications”; to efficiently use its applications in MS office environment; to be able to develop their own applications. Prerequisite for studying it is the knowledge acquired from the course “Mathematics” in the 1st academic year as well as the Object-oriented programming. The knowledge and skills gained from this course are the basis for developing the assigned tasks and projects, as well as for preparing the diploma thesis and for successful future career.

Course content:

Introduction to VBA. Programming for MS office. VBA and objects in MS office. Data types. Macros creating and editing. Built-in functions and expressions. Commands for assigning. Commands for control. Arrays. Introduction to objects and collections. Procedures and functions. Projections and modules. Designing of interface. Menus. Dialogue windows. Elements of dialogue windows. Events. Methods.

Teaching and assessment:

Lecture theory illustrated with relevant examples is consolidated at practice sessions. The continuous assessment at practice classes aims to provide students' feedback and keep them in line with the course progress. The final grade is formed on the basis of the end test result, the entry test result, practice session activities and course work mark.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:****S01539 Geographical Information Systems****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Georgi Nikolov Krastev, MEng, DTSc, Department of Computing
tel.: 082 / 888 672, E-mail: gkrastev@ecs.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge about geographical information systems, their basic applications and components. The course provides students with the possibility to experience operating with concrete software products and lays the foundations for professional growth in such a dynamically developing field.

Course content:

History of GIS, basic terminology, functionality, components and applications. Data base with geographically referenced information. Meta data. Main functions. Basic data formats. Operation with geographically refined data. Basic cartography principles. Creating maps. Layers and symbols, classification methods and styles. Labels and annotation. Geo-coding. GIS data base design. Main resources of geographically referenced data and methods of application. Validation of geographically referenced data. Data analysis in 3D. Cartographic algebra. Raster data base. Topographic analysis. Distances. Visualization techniques. Image processing. Perspectives of GIS design.

Teaching and assessment:

Lectures are 2 hours weekly. Practice sessions are 3-hours weekly. Each student gets a course work that has to be worked out as homework. Course works are defended and evaluated in the end of the course. Students do two test papers on theory and practice-oriented problems. The course ends with a continuous assessment mark. The final grade is formed as a sum of 0,7 of the test paper results, 0,1 of student's participation in the seminars.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:** written

S01538 Programming Mobile Devices**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The course aims at giving the students knowledge and skills about types of mobile devices and their programming. Two programming approaches are addressed: Java/Android/Android Studio and in the Microsoft Visual Studio environment. The course steps on basic knowledge in maths, English, programming and depends on: Component oriented programming, Programming for Internet and Internet technologies. The acquired knowledge will be used in the diploma project and future practice of the graduates.

Course content:

Introduction. Types of mobile devices. Programming in Java/Android. Developing a simple application. User interface: Layouts, widgets, dialogs, menus. Views, activities, services and intents, broadcast receivers, content providers. Phone hardware using. Graphics, animations and multimedia. File system, flash memory. Threads and timers. Network programming. DataBases. OS Windows 10 and mobile possibilities. WPSilverlight and UWP.

Teaching and assessment:

The teaching is organised in lectures and practice sessions. The lectures explain the theoretical foundations of the material and give suitable examples. The students should be able to work alone and develop simple applications during the practice sessions, which are in computer labs. The course finishes with a continuous assessment grade. It is computed as a weighted sum of two control tasks (0.4) and the practice work (0.2).

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:** written**S00908 Computer Linguistics****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies

тел.: 082 / 888 214; E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course introduces students to the automated analysis of texts, text generation, discourse and dialogue, document processing, machine translation, non-verbal communications, speech analysis and synthesis, speech generation. Theoretical knowledge and practical skills acquired in the field of computer linguistics can successfully be applied for developing of real systems. The course incoming links are with informatics courses taught in earlier semesters. The knowledge gained from studying computer linguistics is helpful for developing bachelor thesis by graduates.

Course content:

Main topics: Basic statements in linguistics. Speech recognition. Text identification. Basic grammar categories in the Bulgarian language. Language analysis. Language generation. Text and speech generation. Discourse and dialogue. Documents processing. Machine translation. Non-verbal communications. Speech encoding and decoding. Mathematical methods. Language resources. Evaluation of language processing results.

Teaching and assessment:

The lectures are 2 hours per week. The main theoretical topics are taught through lectures. At the practice sessions students solve problem cases under the lecturer's supervision on topics included in the syllabus. Students reinforce the knowledge acquired at the lectures by studying methods and software tools for formal language processing. Students' knowledge is continuously assessed in the practice sessions through tests. The final grade is based on the results from the exam.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:**

S01546 System Programming**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Pr. Assist. Prof. Magdalena Hristova Andreeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 470, E-mail: magie@ami.uni-ruse.bg**Abstract:**

The course introduces students to the system programming logics. The focus is placed on the substance, principles, methods and means of the system programming languages. Students study in details pointers and their application in address mathematics and operations with functions, strings, arrays, structures and files. The possibilities of the toolkits and methods are taught and illustrated with programming language C (K&R C, ANSI C and C as sub-set of C++). Students acquire practical skills for solving problems using "C" programming language.

Course content:

Organization and main modules in Windows. Optimizing the working environment. Inter-processors communications. Signals. Program channels. Common memory. Semaphores. Messages. Classical problems and their solving with addressed techniques. Threads. Differences between threads and processes. Thread handling. Methods for synchronizing competitive threads. Multi-tasks and multi-threads of problems. Priorities, Specialized modules. Memory organization and control. Dynamical memory distribution for processes; Security and protection; Model for protection.

Teaching and assessment:

The lectures address basic theoretical statements related with system programming. Each thematic group ends with summary and focuses on the main points. In the lab lessons programs realization is done. Each lab begins with analyses of the given problem. Two written examinations are taken – in the middle and at the end of the term. During the labs is also assessed the degree of mastering the theory and the possibility for solving problems.

S01545 Programming in Assembler**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Plamen Kirilov Manoilov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 646, E-mail: pmanoilov@ecs.uni-ruse.bg

Pr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies

te.l: 082 / 888 470, E-mail: mdimitrov@ami.uni-ruse.bg**Abstract:**

The purpose of this course is to acquaint the students with the main principals of how the computer works, which are not obvious to the high level programming languages. The architecture of the 80x86 and Pentium processors is discussed, as well as some of the main instructions for data transferring, arithmetical and logical instructions, input-output and others.

Course content:

Architecture of the processors 80x86 and Pentium; instructions for the processors 80x86 and Pentium; conditional and cycled programs; macros; BCD arithmetic; files; assemblers and linkers.

Teaching and assessment:

The lectures address basic theoretical statements related to programming in Assembler. Each thematic group in the lectures ends with a revision which summarises the studied topics. Each practical session starts with the statement and the analysis of a practical task. Two tests are administered in the middle of the term which cover the material from the lectures. The level of acquisition of the topics covered during the lectures is assessed during the practical sessions along with the ability of students to individually solve problems. A final grade is formed on the basis of this.

S00912 Computer Modeling**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Velina Stoyanova Bozduganova, MEng, PhD, Department of Technical Mechanics

tel.: 082 / 888 572, E-mail: velina@uni-ruse.bg**Abstract:**

Students study the principles and methods of computational technology for applied science research as a combination of mathematical modeling and numerical experiments. Emphasis is put on computer modeling of objects, phenomena and processes characteristic for Natural Sciences, humanities, and for Mathematics. Special attention is paid to solving model problems using the MATLAB® software product. The focus is put on the application of the synthetic optimizing approach as means and aim of computer modeling.

Course contents:

Introduction to computer modeling. Optimization technology in modeling. Methodology of mathematical modeling. Methodology of numerical experiments. Examples: models of Newtonian Mechanics, modeling of processes in biological, economical and social systems; computer modeling of psychological phenomena.

Teaching and assessment:

The course is conducted through lectures and practice sessions held in computer labs, equipped with MATLAB® software product, as well as individual consultations on the assigned course work that is submitted as a written report. The course ends with an exam. The final grade is formed on the basis of the results from the course work, its oral defence before the lecturer, the grade for the theoretical question development and students' activities during the practice sessions.

SB0913 Programming Languages, Automation, Computing**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: vvelikov@ami.uni-ruse.bg**Abstract:**

The course goal is to equip students with knowledge for carrying out quantitative comparative analysis of the main approaches for programming based on their computation models. Some important problems of the computation models are discussed as well as the issue for choosing the appropriate model for programming when processing definite data structures.

Course content:

Relations. General Algebra. Theory of automata, and formal languages. Determined and nondetermined finite automata. Theory of algorithms. General Computational Model. Turing Machine, and Turing - Church Thesis. 'While' program and problems of the structural programming languages. Functional program, and problems of programming language ML. Logic program, and problems of programming language Prolog. Control production system, and problems of programming language Net. Insolubility, complexity, the classes P and NP, PN.

Teaching and assessment:

Each group of lectures ends with a summary with an accent on the main points. During the seminar sessions students solve problems related to the material taught. Each seminar session begins with a short introduction to the theory and an explanation of the algorithm for implementing the task. The course ends with a written examination. The course mark is based on continuous assessment.

S01553 State Exam**ECTS credits:** 10**Assessment:** exam**Departments involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Informatics and Information Technologies

Abstract:

The state examination is held in front of the State Examination Commission in accordance with the approved syllabus, which includes main topics from all foundation courses.

Course content:

The State examination includes all main subjects in the Department of Informatics and Information Technologies.

Teaching and assessment:

The final year student takes the State examination which is evaluated by the State Examination Commission

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:** written**S00083 Bachelor Thesis****ECTS credits:** 10**Assessment:** exam**Departments involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Informatics and Information Technologies

Abstract:

The state examination is held in front of the State Examination Commission in accordance with the approved syllabus, which includes main topics from all foundation courses.

Course content:

The State examination includes all main subjects in the Department of Informatics and Information Technologies.

Teaching and assessment:

The final year student takes the State examination which is evaluated by the State Examination Commission.

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:** written

**UNDERGRADUATE
STUDIES
IN
COMPUTER SCIENCE**

**PROFESSIONAL STANDARDS
OF A BACHELOR IN COMPUTER SCIENCE**

Degree Programme: **Computer Science**
Educational Degree: **Bachelor**
Professional Qualification: **Bachelor in Computer Science**
Term of education: **4 years (8 terms)**

The main target of the study program is to graduate professionals in Computer science who possess deep knowledge and skills for working in the field of Informatics and Computer Science.

The professional development of bachelors in computer science is aimed at software operating, maintenance and development, as well as administration of programming systems and networks.

The Computer Science Bachelors are equipped with professional skills and programming language knowledge in the area of Informatics and Computer Science. Graduates are also provided with good mathematical learning. The professional qualification is guaranteed by the well-balanced proportion of basic courses in Informatics, Mathematics and other practice-oriented subjects.

The study program involves:

- **Basic courses** in the main branches of Informatics and Computer Science, Mathematics, Mechanics, and foreign languages;
- **Specialized** courses covering due knowledge on computer architectures, network communications, computer linguistics, image processing, web design, etc. included in groups of elective subjects;
- **Acquisition of practice-oriented knowledge and skills** for using modern software products.

Bachelors of Computer Science will be able to:

- Quickly adjust to any working environment and creatively apply the knowledge gained;
- Analyze the necessity of automation of relevant firm's activities and suggest adequate software products for the purpose;
- Design and develop or adapt relevant software products to the needs of concrete applications, working in teams with other IT professionals of the company;
- Design, implement and administrate computer networks;
- Teach students at high schools if a teaching certificate has been awarded after completing due optional courses.

CURRICULUM
OF THE DEGREE COURSE IN COMPUTER SCIENCE

First year

<i>Code</i>	<i>First term</i>	<i>ECTS</i>	<i>Code</i>	<i>Second term</i>	<i>ECTS</i>
S01034	Introduction to Programming	8	S01076	Object Oriented Programming	8
S00848	Introduction to Informatics	4	S01083	Computer Architectures	6
S01051	Calculus I	6	S00854	Discrete structures	6
S01065	Linear Algebra and Geometry	8	S01089	Calculus II	6
S00856	English Part I	4	S01106	English Part II	4
Total for the term:		30	Total for the term:		30
SB13965	Sports	1	S00072	Sports	1

Second year

<i>Code</i>	<i>Third term</i>	<i>ECTS</i>	<i>Code</i>	<i>Fourth term</i>	<i>ECTS</i>
S01118	Data Structures and Programming	7	S01182	Data Bases	7
S01119	Operating Systems	6	S01183	Computer Networks and Communications	5
S01122	Computer Graphics	7	S01184	Non-procedural Programming	5
S01125	Numerical Methods	6	S00865	Multimedia Systems and Technologies	7
S01181	English for Computing	4	Elective courses (students choose one course)		
			S01186	Practicum on OOP	3
			S01187	Practicum on Computer Graphics	3
			Elective courses (students choose one course)		
			S01188	Practicum on Discrete Structures	3
			S01190	Mathematical Software	3
Total for the term:		30	Total for the term:		30
SB13965	Sports	1	SB13965	Sports	1

Third year

<i>Code</i>	<i>Fifth term</i>	<i>ECTS</i>	<i>Code</i>	<i>Sixth term</i>	<i>ECTS</i>
S01192	Algorithm Development and Analysis	6	S01212	Artificial Intelligence	6
S01410	Component Oriented Programming	6	S01215	Internet Technologies	6
S01194	Information Systems	6	S01185	Probability and Statistics	5
S01197	Software Engineering,	7	Elective courses (students choose one course)		
Total for the term:		30	Total for the term:		30
S01200	Mathematical Methods for Optimization	5	S01198	Practicum on Databases	3
S01248	Operations Research	5	S01199	Practicum on Data Structures and Programming	3
			S00887	Practicum	3
			Elective courses (students choose one course)		
			S01191	The Number Theory	5
			S01260	Coding Theory	5

			Elective courses (students choose one course)		
			S01414	Introduction to Management	5
			S01419	Project Management	5
			S01420	Public Relations	5
			S01444	History of Mathematics and Informatics	5
		Total for the term:	30		
SB13965	Sports	1	SB13965	Sports	1

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
S01446	Human-computer Interaction	5	S01518	Computer Modeling	4
SB10019	Image Processing	6	S00084	Graduation Self-study	4
SB10020	Programming Languages, Automation, Computing	6			
Elective courses (students choose one course)			Elective courses (students choose one course)		
S01475	Programming for Internet	5	SB10022	Social-legal aspects of Information technologies	4
S01481	Web Design	5	SB10023	Information Technologies in Management	4
Elective courses (students choose one course)			Elective courses (students choose one course)		
SB10021	Computer Linguistics	5	S01538	Programming of Mobile Devices	4
S01501	Client-Server Technology	5	S01539	Geographical Information Systems	4
			S01544	Visual Programming	4
Elective courses (students choose one course)			Elective courses (students choose one course)		
S01218	Practicum on Software Engineering	3	S01545	Assembler	4
S01245	Practicum on Computer Networks and Communications	3	S01546	System Programming	4
S01244	Practicum on Non-procedural Programming	3			
			Graduation		
			S01553	State Exam	10
			S00083	Bachelor Thesis	10
		Total for the term:	30		
SB13965	Sports	1	SB13965	Sports	1

Total for the course of study: 240 ECTS credits

S01034 Introduction to Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge for developing algorithms and programmes in C++ programming language. The course focuses on the main data structures in the programming language C++ and on the main operations with that data. Special attention is paid on algorithm development being the basic step for writing programs. The practice sessions aim at acquiring skills for developing algorithms and programs.

Course content:

Algorithm development. Main data types and operation in C++ programs. Controlling structures – branches, choosing a variant, cycles. Arrays and arrays of arrays, pointers, one-dimensional dynamic and multi-dimensional arrays, character strings. Functions. Recursive algorithms and recursive functions.

Teaching and assessment:

The lectures concentrate on the process of algorithm development, testing and verification and their implementation in C++. Students are given suitable examples and independent tasks to practise writing programs and develop new programs. At the practice sessions students write programs and do tests. Each student prepares a course work including 5 tasks and presents them to the lecturer. Students get term validation after successful submissions of all assigned tasks. The examination is in a written form, but students defend their work orally. The test marks and the course work results are taken into consideration for the final examination mark.

S00848 Introduction to Informatics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course is within the group of the compulsory subjects to be studied during the first semester by students from the bachelor degree programs of Computer Science, and Informatics and Information Technologies in Business. Its goal is to familiarize students with the essence, methods and tasks of Informatics, so that they can catch up with the required level of knowledge.

Course content:

Subject, methods and tasks of Informatics. Data structure and representation in computer. Principle of the program control. Files and file systems (FAT 16/32; NTFS). File formats. Files:- backups, compressing, cryptography, data bases, SQL. Numerical systems. Boolean algebra. Elements of combinatorics used in Informatics. Numbers representation. Machine codes. Representation of fractions formats. Symbols representation and code tables. John von Neumann's principle. Methods of programs design. Stages of the programming design. Testing methods. Algorithms.

Teaching and assessment:

Lectures are conducted two hours once a fortnight. At the practice sessions students are trained to work independently. They are encouraged to perform the assigned tasks by themselves and when necessary they are assisted and guided by the teacher. Students' activities are continuously assessed so that they get final marks in the end of the semester. Each student writes a paper on an assigned topic associated with the subject domain. In the end of the course the paper is submitted and defended. The continuous assessment includes the marks from two tests. The final grade is formed on the basis of tests results, the paper mark and the assessment of the practice sessions work.

S01051 Calculus I**ECTS credits:** 6**Assessment:** exam**Departments involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Antoaneta Tileva Mihova, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: amihova@uni-ruse.bg**Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics**tel.: 082/ 888 587, E-mail: mkoleva@uni-ruse.bg**Abstract:**

The course is fundamental for mathematical education of students in “Informatics and Information Technologies”. It is a basis for further courses, such as Calculus II, Discrete Mathematics, Numerical Methods, etc. The main purpose of the course is students to get acquainted with the differential and integral calculus of functions of one variable. The fundamental notions for limit, derivative and integral are defined, and their properties and applications are considered.

Course content:

Sets and mappings, Real numbers, Basic elementary functions, Limits, Continuity of functions, Derivatives, Indefinite and Definite integrals and applications.

Teaching and assessment:

Lectures present notions, properties, and main assertions of the material, supported by suitable examples and problems. Practice are built up in accordance with lectures. Students are given three test papers and a paper. A term validation is granted in case of regular attendance at lectures and practice sessions. The exam is written and includes 4 practical and 2 theoretical problems.

Weekly classes: 2lec+2sem+0labs+0ps+0.5se**Type of exam:** written**S01065 Linear Algebra and Geometry****ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:**Assoc. Prof. Emilia Angelova Velikova, MSc, PhD, Department of Mathematics**tel.: 082 / 888 848, E-mail: evelikova@ami.uni-ruse.bg

Pr. Assist. Prof. Ralitsa Krasimirova Vasileva - Ivanova, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The presented course is fundamental and obligatory for the specialities in Informatics and Computer Science. In this curriculum the work load per week is strongly diminished. It is based on the secondary school course in Algebra and is connected with Discrete Structures in the same term. It gives knowledge for the courses in Number Theory, Mathematical Analysis, Computer Graphics, Numerical Methods, Coding Theory, Languages and Numerability .

Course content:

Solving systems of linear equations. Determinants. Matrix operations. Linear spaces – subspaces, basis, dimension. Linear mappings - rang and nullity. Euclidean and unitary spaces. Bilinear and quadratic forms. Groups. Lagrange’s theorem. Normal subgroups. Quotient groups and isomorphism theorems. Rings and ideals. Quotient rings and the isomorphism theorem. Integral domains and fields. Splitting fields. Finite fields. Polynomials in several variables. Symmetric and homogeneous symmetric polynomials. Polynomials over numerical fields. The basic theorem of algebra.

Teaching and assessment:

The practice sessions follow the lectures and put stress on the individual student’s work. Students are allotted course assignments. Three test papers are given after every completed part of the course. The final mark can be received before the session time. Its forming is defined in the teaching program of the course.

S00856 English Part I**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Tsvetana Atanasova Shenkova, MA, Department of Foreign Languages

tel.: 082 / 888 532, E-mail: tsshenkova@uni-ruse.bg**Abstract:**

'English Part 1' for Computer Science students comprises 45 hours of classroom work and provides basic skills for oral and written communication in the foreign language in view of the students' field of study. New vocabulary connected with the basic terminology of the specialized subjects is acquired. General topics related to the field of informatics and computer science are considered. Skills to elicit essential information from a text and write a summary are developed. Students are expected to prepare and give a short presentation on a chosen topic related to computing or IT. A prerequisite for 'English Part 1' is an English course taken in secondary school.

Course content:

Living in a digital age. Computer essentials. Inside a PC system. Buying a computer. Input devices. Interacting with your computer. Display screens and ergonomics. Choosing a printer. Devices for the disabled. Magnetic storage. Specifics of technical English grammar and vocabulary.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester.

The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, giving a presentation and doing the tests. The final mark is based on continuous assessment.

S01076 Object Oriented Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bg

Pr. Assist. Prof. Ivaylo Kamenov Kamenarov, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: kkamenarov@ami.uni-ruse.bg**Abstract:**

The course is a continuation of the course "Introduction to programming". It focuses on the main concepts of object-oriented programming. The programming language C++ is studied in detail and especially the object-oriented part. Classes and objects are studied being the main categories, as well as the main concepts for working with them. The practice sessions aim at acquiring skills for developing object-oriented programs. The programs are implemented using Borland C++.

Course content:

Classes and objects. Components of classes – data members, functions' members, constructors and destructors. Objects and functions. Friends of classes. Derivatives of classes, inheritance. Streams. Pre-defined operators.

Teaching and assessment:

The lectures give the principles for development of algorithms using classes and objects, as well as their implementation in C++. They are supported with lots of exemplary programs and students have to independently modify the examples and write similar programs for training themselves in programming.

At the practice sessions students write programmes, verify them and do tests. Student's course work includes two problems for independent work that has is defended and evaluated on submission. The term is validated for students who defend successfully the course work.

S01083 Computer Architectures**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Computing

Faculty of Electrical Engineering, Electronics and Automation

Lecturers:

Assoc. Prof. Milen Iliev Lukanchevski, MEng, PhD, Department of Computing

tel.: 082 / 888 674, E-mail: mil@ieee.org**Abstract:**

The course addresses architectural aspects of computer systems. Main terms and principles in computer architectures are discussed as well as organization of computations. Modern computer architectures are presented analytically and comparatively. Memory hierarchy and input-output subsystem structure are shown as well. Simulations and real systems are used at the seminars to gain more deep understanding.

Course content:

Computer Architecture Principles. Basic Components. Historical Perspective. Types of Computer Architectures. Computer System Base Structure. Accumulator, Stack and Register Architectures. IA32 Architecture. Working Modes. Computer Memory Hierarchy. Input-output System.

Teaching and assessment:

The lectures introduce main theoretical topics. Each group of lectures ends with conclusion of material and formulation of problems.

At the seminars simulations and real systems are used putting lectures to practice. Each seminar begins with formulation and analysis of problems. At very end the students are asked to summarize in written form their results. The information materials needed are given in electronic form to the students.

Weekly classes: 2l+0sem+0labs+2ps**Type of exam:** written**S00854 Discrete Structures****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics**tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg**Pr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Algebra and Geometry**tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Abstract:**

The course is basic for students of Informatics and Information technologies program. Its incoming course links are with General Algebra and Geometry. Students acquire fundamental knowledge about informatics, optimization theory, algorithm theory and their applications.

Course content:

Recurrent equations, abstract machines and automata, introduction to the coding theory.

Teaching and assessment:

The course material is presented at lectures, demonstrated with examples and practice-oriented applications. At practice sessions students gain skills for working independently over assigned tasks. The allotted paper develops students' knowledge for solving different problems and practice oriented tasks. The paper is evaluated acc. to a score table (0 to 20 scores) that is taken into account for the final grade. Students may not go for an exam if the continuous assessment results are very good or excellent and that mark may be considered as a final grade.

Weekly classes: 2lec+0sem+0labs+2ps+0.5se**Type of exam:** written

S01089 Calculus Part II**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Antoaneta Tileva Mihova, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: amihova@uni-ruse.bg**Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics**tel.: 082/ 888 587, E-mail: mkoleva@uni-ruse.bg**Abstract:**

Calculus - Part 2 is fundamental subject among the mathematical courses of the speciality. It is a continuation of the subject Calculus - Part 1. The main purpose of the course is students to get acquainted with the differential and integral calculus of functions of several variables. The outgoing relations of the subject are with Numerical methods, Probability and Statistics, and with other elective courses in mathematics and informatics.

Course content:

Function of several variables: differentiation, extremums, implicit functions. Multiple integrals and applications, Curve and surface integrals, Functional series.

Teaching and assessment:

Lectures present notions, properties, and main assertions of the material, supported by suitable examples and problems. Practice are built up in accordance with lectures. Students are given three test papers and a paper. A term validation is granted in case of regular attendance. The exam is written and includes 6 practical and/or theoretical problems. The subject is fundamental among the subjects in the basic module of the specialty Mathematics and Informatics. It is a continuation of the subject Calculus - Part 1. Its outgoing relations are with all mathematical subjects of the study program.

Weekly classes: 2lec+0sem+0labs+2ps+0.5se**Type of exam:** written**S01106 English Part II****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Tsvetana Atanasova Shenkova, MA, Department of Foreign Languages

tel.: 082 / 888 532, E-mail: tsshenkova@uni-ruse.bg**Abstract:**

'English Part 2' for Computer Science students extends the foreign language competence of students to cope with specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Authentic texts mainly are used to bring the learners closer to scientific style. Collocations with frequently used terms and notions are considered. Students prepare and give team presentations.

Course content:

Storage devices (optical discs and drives, flash drives); The operating system; Word processing; Spreadsheets and databases; The Internet and email; The Web; Chat and conferencing; Internet security; Graphics and design.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester. The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, participating in a team presentation and doing the tests. The final mark is based on continuous assessment.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written and oral

S01118 Data Structures and Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bgPr. Assist. Prof. Kameliya Ilieva Shoylekova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: kshoylekova@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge on complex data structures, data structure design algorithms and maintenance, application software. Reference practical cases are considered as data structure applications. Data structures and processing algorithms are considered conceptually at first and afterwards implemented in C++.

Course content:

Sorting and searching algorithms. Stack implementation and processing. Queue implementation and processing. Linear linked lists. Sorted lists. Binary trees. Binary search trees. Graphs. Graph presentation. Graph algorithms and applications.

Teaching and assessment:

The lectures focus on data structures in accordance with the syllabus. The accent is placed on data structure presentations, the applied basic operations and types of problems solved with the created data structure. Program implementation in C++. At practice sessions students design and test concrete practical cases using complex data structures. The course work is carried out individually in two stages as homework and it is presented in a pre-set time. Students do 3 tests on theory and practical cases during the term. The course ends with exam. The grade is formed on the basis of the results from the exam, course work and tests.

S01119 Operating Systems**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: voinohovska@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge and skills about the main principles of design and functioning of the operating systems. At the lectures the theoretical material is illustrated with examples from different modern OS. The practice sessions are based on the two most widespread OS: Windows and UNIX. Their organization and way of operation are addressed and compared.

Course content:

Introduction to OS. OS classification. Structure of OS. Processes and threads. Interaction between processes. Parallel processes. Synchronisation. Solutions to classical problems. Mutual blocking. CPU management. Planning algorithms. Memory management. Virtual memory management and protection. Device management. Organization of I/O devices. File system management. Functions and structure of the file system. Multimedia OS. Distributed systems. Protection and security in OS.

Teaching and assessment:

The lectures are 2 hours per week and the theoretic material is delivered at the lectures. The practice sessions take place in computer-equipped labs under the lecturer's supervision on topics as listed. At the practice sessions the students can strengthen the knowledge given at the lectures by discussing the features of particular OS and running examples. The students' knowledge is continuously assessed at the practice sessions with tests. The final grade is computed taking into account the continuous assessment at the practice sessions and the exam results.

S01122 Computer Graphics**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Tzvetomir Ivanov Vasilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course objective is to familiarize the students with the basic principles of developing and working of interactive computer graphic systems and to give them knowledge needed for the development of program systems for geometrical modeling of objects and graphic documents using computers. Students learn the main principles and approaches for visualization of 2-D and 3-D objects. Special attention is paid to the methods of developing graphic users' interface.

Course content:

General information about computer graphics. Structure of interactive graphic systems. Peripheral devices for computer graphics. Architecture of up-to-date raster graphic displays. Basic graphic plain and 3-D space transformations. Matrix description. Composition of transformations. 3-D objects plain projections. Object description in graphic systems, models. Approximation and modeling of plain curves – interpolation, cubic splines, B-splines, Besie's curves. Organization of interactive work in computer graphic systems. Graphical user interface. Computer graphics color, color models.

Teaching and assessment:

The course comprises lectures and practice sessions. Student subgroups attend the practice sessions in computer labs equipped with modern PCs. During the practice sessions students solve independently problems connected with the lecture theory. E.g. selection of object description material, visualization, interactive manipulating of the object. All operations are carried out in adequate programming environment (Borland Pascal, Borland C++, Delphi, Visual C++). The course ends with exam. The final grade is formed on the basis of student's continuous assessment through the term (30%) and the exam result (70%).

S01125 Numerical Methods**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082/ 888 606, E-mail: eveleva@uni-ruse.bg

Pr. Assist. Prof. Ivan Radoslavov Georgiev, Department of Applied Mathematics and Statistics

tel.: 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The main objectives of the course are: to give a basic knowledge in the theory of numerical analysis, numerical linear algebra and numerical methods for initial and boundary-value problems for ordinary differential equations; to develop skills for computer realization of the numerical methods using programming environment Matlab; to develop skills for intelligent application of approximation techniques to the types of problems that commonly occur in engineering and physical and computer science.

Course content:

Numerical methods for solving one nonlinear equation and system of nonlinear equations. Interpolation and approximation functions. Numerical integration and differentiation. Direct and iterative methods for solving system of linear equations. Numerical evaluation of matrix eigenvalues and eigenvectors. Numerical solution of initial-value and boundary-value problems for ordinary differential equations.

Teaching and assessment:

The teaching is carried out by means of lectures and computer practice sessions. At the lectures the material is explained theoretically and illustrated by appropriate example problems. At the practice sessions the students solve theoretical and practical problems and use the programming environment Matlab for computer realization of the algorithms.

S01181 English for Computing**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Tsvetana Atanasova Shenkova, MA, Department of Foreign Languages

tel.: 082 / 888 532, E-mail: tsshenkova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps+0,5p**Type of exam:** written and oral**Abstract:**

The subject English for Computing extends the foreign language competence of students with respect to specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Collocations integrating common terms and notions are considered. Students prepare and give individual or team presentations related to establish IT companies or distinguished specialists in the field.

Course content:

Problem and solution; Programming; Flowcharts; An Interview with an Analyst/programmer; Computing words and abbreviations; Contrast; Low-level systems; The CPU; The machine cycle; *will* and *would*; Virtual reality; Future developments; Schooling of the future; Making guidelines and rules; An Interview with an IT Manager; Access systems; Careers in computing; An Interview with a Systems Manager.

Teaching and assessment:

The practice sessions contain the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the term. The requirements for obtaining a term validation are regular attendance, completing assigned tasks, participating in a team presentation and doing the tests. The term mark is based on continuous assessment.

S01182 Data Bases**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 464, 888 326, E-mail: kgrigorova@ami.uni-ruse.bg**Weekly classes:** 2lec+1sem+0labs+2ps+1ca**Type of exam:** written**Abstract:**

The purpose of this course is to familiarize students with the main principles of organising, creating and implementing of databases (DBs), database management systems (DBMS), and the information systems building. Students gain knowledge on important topics of database theory, the physical and logical organisation of DB, existing data models and the specificity of the models. The emphasis is on the relational database model.

Course content:

Main terminology in the DB theory, DBMS. Data models. Logical models. DB schema. Relational model. Relational DB schema. Relational algebra and relational calculus. Main operations with the data in the BD. Data manipulation languages. SQL. Queries. Interaction. Functional dependencies. Relational schema analysis. Normalisation and normal forms. DBMS. Operating principles. Transactions management. DB internal model. Physical organization and access methods.

Teaching and assessment:

The course comprises lectures, seminars, practice sessions and a course work. The lectures introduce important issues from DB organization, designing, building and application. During seminar classes students discuss problems related to DB theory and examine the practical applications. The practice sessions are intended to contribute to students' skills for designing individual DB and learn how to work in teams. The course work target is students to build up skills for DB designing. During the term students do 4 tests including theory and problem solution cases. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course work, the tests and student's activity during the term.

S01183 Computer Networks and Communications**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bgAssoc. Prof. Georgi Valentinov Hristov, MEng, PhD, Department of Telecommunications
tel.: 082 / 888 663, E-mail: ghristov@uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the principles and ways of connecting computers in networks as well as with the implementation of intercommunication between different levels of connections.

Course content:

Devices and topologies used in computer networks. Networks types. Physical level in networks. Theoretical bases and media for distance data transfer. Channel communication in networks – basic characteristics. Protocols. HDLC and PPP. Ethernet channel. Routine algorithms. Data streams loading and control within a network. Network level with IP protocol. Transformation of IP and MAC addresses. Class-free addressing. Routines in IP networks. Interior protocols – RIP and OSPF. Gateway protocol BGP. Group routine. Transport level. Protocols with sockets – procedures. Transport protocols TCP and UDP. DNS and NetBIOS systems for domain names in networks. DNS and NetBIOS server and clients. Name resolving. Session level in Internet – file transfer and FTP protocol. Application level. SMTP and POP3 protocols. WEB technologies in Internet. Hypertext and HTTP protocol. Security and authenticity in networks. Symmetric and asymmetric encoding. Public key and digital signature.

Teaching and assessment:

The lectures are 2 classes per week. Each student works independently on a course assignment that is evaluated. At the end of the course students make a test covering the lecture topics. The final grade is formed as 0.7 of the test mark, 0.1 of student's work during the practice sessions and 0.2 of the course assignment mark.

S00865 Multimedia Systems and Technologies**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645; E-mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with multimedia basic components and the stages for developing multimedia applications (MMAs). Students study the fundamentals of HTML programming language and acquire skills for using modern systems and technologies in designing multimedia CD and Web-based applications.

Course content:

Multimedia – basic terminology. Standard carriers of multimedia information. Requirements and stages for developing MMAs. Multimedia elements: text, graphical, sound objects and animation, file formats, compression, software. Author's systems for designing MMAs. Programming languages in author's systems. Introduction to HTML for the need of multimedia. Multimedia and internet – tools, text, images, stream sound and video. Virtual reality.

Teaching and assessment:

Lectures are conducted 2 hours weekly. Practice sessions are 3-hour classes and are held under the supervision of an assistant professor/instructor following the theory taught at lectures. In the beginning of the sessions students do a 5-minute brief test or oral questioning as feedback. Besides practice sessions, students have to work on individual course work in extra time. In the end of the course they do a written test covering the lecture material.

S01184 Non-procedural Programming**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bgAssoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is to familiarize students with two non-procedural styles of programming – logical and functional. Students study the fundamentals of programming and a concrete programming language, representing the relevant programming style (functional – e.g. LISP, SCHEME or ML and logic – e.g. PROLOG). Non-procedural programming course is in close connection with the following courses – Introduction to Programming, Discrete Mathematics, Data Structures and Programming. It builds up the prerequisite for attending the next coming course “Artificial Intelligence”.

Course content:

Functional programming: Main principles of Functional programming (FP), Constructions and techniques of FP languages, Data structures of FP languages, FP applications; *Logic programming:* Main principles of Logic programming (LP), Constructions and techniques of LP languages, LP applications, Comparative analysis of LP and FP. During the practice sessions students develop programs.

Teaching and assessment:

The course involves lectures, practice sessions and a course work. At lectures students learn the main principles of logic and functional programming, the syntax and semantics of programming languages, the techniques and style of relevant programming mode. Each student works on an individual task referring to compiling a program and its execution on a personal computer. Students use adequate programming languages (LISP, PROLOG, ML).

S01186 Practicum on Object-oriented Programming**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bgPr. Assist. Prof. Ivaylo Kamenov Kamenarov, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326, E-mail: kkamenarov@ami.uni-ruse.bg**Abstract:**

This practicum is a continuation of the courses “Introduction to Programming” and “Object-oriented Programming”. The course objective is to deepen student’s knowledge and practical skills focusing on themes of the object-oriented approach in programming. Making programs in C++ on the basis of classes, objects and object hierarchies, students improve their programming skills and form habits for independently solving of sophisticated problems.

Course content:

Classes, objects, inheritance. Designing of object hierarchy. Virtual functions and classes. Polymorphism. Dynamic objects. Constructors and de-constructors. Commands. Pre-definition of commands. Templates of functions and classes. Creation of libraries. Operation with ready-to-use libraries.

Teaching and assessment:

Students attend the practicum classes. They get individual assignments, comment the methods of solving, and discuss the peculiarities of program implementation by using the object-oriented approach. Students realize the programs in practice and the accent is laid on program settings, program testing as well as on the input data logical and formal testing. The course ends with a continuous assessment mark, based on student’s individual work during the term and the results from the tests.

S01187 Practicum on Computer Graphics**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bgAssoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain practical skills on the theoretical knowledge introduced by the course "Computer Graphics". Students learn the operating principles of widespread software products for computer graphics and obtain practical skills for using these products. The focus is also laid on the main methods for graphical data exchange from different software products, as well as on the way of working both with vector and raster images.

Course content:

Destination and basic capacities of modern software products for computer graphics. Operating with texts in graphical systems. Basic graphical primitives, parameters, geometric transformations. Operating with curves – free-hand-drawing and Bezier curves. Organization of working with layers, possibilities, basic parameters of layers. Operating with raster images in systems for vector graphics. Obtaining raster images. TWAIN interface. Processing of raster images. Raster file formats. Practical aspects for choosing file format and compression coefficient; image quality.

Teaching and assessment:

The course is conducted through practice sessions. Students are involved in discussions regarding theoretical and practical aspects of the topic. The lessons are held in computer labs for practical application of theoretical knowledge that is commented in advance. The individual course assignment is a complex task requiring the usage of computer graphics products.

S01188 Practicum on Discrete Structures**ECTS credits:** 2**Assessment:** exam**Department involved:**Department of Mathematics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics
tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bgPr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Algebra and Geometry
tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Abstract:**

The discipline "Practicum on discrete structures" is a mathematical subject, which gives the students necessary knowledge and skills for solving problems, concerning the new computer system and technologies. It is an instrument for modeling problems in computer sciences. The students gain experience in developing effective working algorithms in order to create different computer systems. They develop framework for building digital micro processing systems and programs. During the lecturers possibilities for applications of discrete mathematics in data base management systems, expert systems, encoding, sorting of information are analyzed.

Course content: Games with optimal strategies; Algorithms for games with optimal strategies; Management data base systems; Sorting information.

Graph theory; Directed, Undirected, Weight, Planar, Euler graph . Algorithms for building of spanning trees. Minimal spanning trees. Tracing of graphs. Analyzers of natural languages. Type of Grammars. Sets models, Algebraic systems.

Teaching and assessment:

According to the presented study syllabus practical tutorials, preparation of a written paper and individual work are envisaged. Course assignments are regularly distributed. During the practice sessions the necessary mathematical volume of knowledge, which is to be applied for constructing algorithms for real systems, is given. Those algorithms are tested during the time interval, which is envisaged for individual work.

The students' knowledge is controlled through 2 written tests during the term. The tests consist of 2 parts: theoretical problems and tasks. Both evaluation marks participate with a weight of $\frac{1}{4}$ to the final mark.

S01190 Mathematical Software**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Julia Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082/ 888 226, E-mail: mkoleva@uni-ruse.bg**Abstract:**

The subject Mathematical Software is elective. It is based on the courses of Algebra, Geometry, Calculus, and Numerical methods. The subject gets the students acquainted with the basic skills of working and programming with the mathematical software *Mathematica* in order to promote their educational and research activities. The focus is put on the experimentation, and visualization.

Course content:

Evaluation of symbolic and numerical expressions, Limits, derivatives, and integrals of functions, Finding extrema, Matrix calculus, Solving algebraic equations and systems of simultaneous equations, Visualization, Analysis of ordinary differential equations.

Teaching and assessment:

The training process is realized by practice sessions. Students discuss and solve applied mathematical problems via *Mathematica*. Each student prepares a course paper including particular problems and presents them to the lecturer. The final examination mark is based on student's performance during the practice sessions, the course paper result and its presentation, and the exam.

Weekly classes: 0lec+0sem+0labs+2ps+ca**Type of exam:** written**S01192 Algorithm Development and Analysis****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg

Pr. Assist. Prof. Kameliya Ilieva Shoylekova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 214; E-mail: kshoylekova@ami.uni-ruse.bg**Abstract:**

The course main aim is studying methods for development of algorithms with practice-oriented application. Emphasis is placed on algorithm complexity. Students learn algorithm development techniques, such as recursion, mathematical induction. Algorithms are grouped in themes to facilitate the introduction of the adequate methods for their implementation. During the practice sessions students make programs for the algorithms introduced at the lectures using different methods, they compare and analyze the program specificity.

Course content:

Algorithm in general. Analysis and development. Algorithm complexity. Iteration and recursion. Mathematical induction. Greedy algorithms. Divide and conquer. Dynamic programming. Algorithms using linear data structures. Algorithms using sequences and sets. Graph algorithms. Computational Geometry. Geometric algorithms. Numerical algorithms. Combinatorial algorithms. Parallel algorithms.

Teaching and assessment:

The lectures introduce the possibilities for algorithm development in compliance with the course syllabus. The practice sessions include solving of specific practice-oriented problems using relevant algorithm group. Different program realizations are applied for solving one and the same problem aiming to compare the program realizations. The course work is assigned in steps which students realize individually for a definite time as homework. During the term students do three 3 tests including problems and theoretical material. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course assignment and the tests.

S01410 Component Oriented Programming**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vasilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: vvelikov@ami.uni-ruse.bg**Abstract:**

The course familiarizes students with the principles of contemporary Windows and Internet programming, focusing on the diversity of tools and adequate methods of application. Students study the ideology and significant details of Java programming language being a traditionally applied component-oriented language technology suitable both for training and for industry application. The incoming course links of the discipline are: Introduction to Programming, Object-oriented Programming (OOP), Data Structures and Programming. Outgoing course links: Artificial Intelligence, Multimedia Systems and Technologies, Internet Technologies, Programming for Internet.

Course content:

After a concise introduction to the fundamental resources and tools of Windows and Internet programming, follows a time-limited acquaintance with basic language aids and structures that proceeds with detailed studying an important part of Java package structure and classes for realizing some essential Java possibilities.

Teaching and assessment:

The course represents integrity of lectures and practice sessions. Students' assessment is based on the results from the course work comprising two tasks that are fulfilled as homework, and the results from three test papers realized on PC during the regular practice sessions.

S01194 Information Systems**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 464, 888 326, E-mail: kgrigorova@ami.uni-ruse.bg

Pr. Assist. Prof. Magdalena Hristova Andreeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 470, E-mail: magie@ami.uni-ruse.bg**Abstract:**

The course objective is to introduce the principles of designing, creating and maintaining of information systems. Students study the technologies for analysis and development of applied information systems, as well as for data exchange, management, monitoring and security. The course teaches the main statements and terminology of information system theory, the basic approaches for information systems development, as well as the principles of modeling processes and data. In result of the practice students are able to build up a complete information system.

Course content:

Data and information. System and information system in general. Information system model. Approaches for designing information systems. Information system service life. System analysis. Document movement charts. Block diagrams of data streams. Data dictionaries. Information system architecture. Information system using file servers. Information systems based on client-server architecture. Internet-based information systems architecture. Information systems management.

Teaching and assessment:

The course includes lectures, practice sessions and a course assignment. Lectures are of disputable character. Practice sessions are conducted with student teams on preliminarily assigned tasks. In the end of the term students defend the developed information system. The course assignment is given on. During the term students make three tests including theory and problems. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course assignment and the tests.

S01197 Software Engineering**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course equips students with the required practical skills for developing large-sized software projects. It presents a collection of methods, techniques and tools, from which to select when trying to solve problems that are less well defined and larger than they have previously encountered. After studying this course the student can: analyze a problem so as to enable a computer model to be created; demonstrate competencies in designing, writing and testing software systems; work out relevant software documentation; make software cost estimation.

Course content:

Software and software engineering principles. Software service life models. Gunter model. Software Engineering Tools and Environments. Structural and object-oriented approach for software engineering. Contemporary approaches for software development. Program verification and validation. Software metrics. Software cost estimation. Boem model. Testing and debugging. Prototyping role - automation. Software documentation. Human role in software engineering. Software legislation aspects.

Teaching and assessment:

The lectures are held once a week for a period of two classes. The lectures cover different problems and include discussions on the main aspects of the topic. The seminars are intended for problem solving on topics and aim to deepen students' knowledge attained during the lectures. The seminars focus on UML as a modelling language. The practice sessions are mainly for students' individual work. They solve problems from the software engineering field. Each student develops a part of a given software system as a course work. The course ends with a written exam. The final grade is based on the performance of students during the seminars, the practical sessions and the course work (which form a total of 40% of the final mark) and the grade on the exam (which forms 60% of the final mark)

S01200 Mathematical Methods for Optimization**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Applied Mathematics and Statistics
Department of Natural Sciences and Education**Lecturers:**Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bgPr. Assist. Prof. Ivan Radoslavov Georgiev, PhD, Department of Applied Mathematics and Statistics
tel.: 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The course objective is students to be acquainted with the basic mathematical approaches and modern methods for solving, analyzing and interpreting of problems that arise in economics management. It is practically oriented. The material is suitably presented for students not skilled in mathematics. All examples and problems within the course scope are applicable in practice. During the practice sessions students get familiar with software applications used for solving sophisticated real problems.

Course content:

Introduction to mathematical modelling. General formulation of linear programming problem (LPP). Working out linear programming models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the LSE solutions. Graphic method for solving LPP. Simplex method. Duality in linear programming. The transportation problem. Goal programming. Integer programming. Network analysis, including PERT-CPM. Elements of queueing theory. Elements of inventory theory.

Teaching and assessment:

The teaching process is realized through lectures, seminar exercises and course assignment. Topics discussed during lectures are consolidated through practice sessions. Special attention is paid to the software package MATLAB for solving complicated and practice-oriented problems.

S01248 Operations Research**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assist. Prof. Ivan Radoslavov Georgiev, PhD, Department of Applied Mathematics and Statistics

tel.: 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The course objective is students to be acquainted with the basic mathematical approaches and modern methods for solving, analyzing and interpreting of problems that arise in economics management. It is practically oriented. The material is suitably presented for students not skilled in mathematics. All examples and problems within the course scope are applicable in practice. During the practice sessions students get familiar with software applications used for solving sophisticated real problems.

Course content:

Main objectives and goals of the course. Mathematical models of operations. Efficiency and optimum conditions criteria. General statements of the linear optimization problem. Designing linear optimization models. Linear vector spaces. . Systems of n linear equations with m unknowns (LSE). Properties of the Linear Optimization Problem solutions. Grafical method for solving LOP. Simplex method. Duality of LO. The transportation problem. Multicriteria LO. Integer LO. Network analysis. Planning. Elements of queueing theory. Optimal management of inventory.

Teaching and assessment:

The teaching process is realized through lectures provided with numerous examples. Topics discussed at lecture classes are illustrated with practice-oriented examples. Practice sessions focus on problems in connection with the lecture material. Special attention is paid on the software package MATLAB for solving complicated and practice-oriented problems.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:****S01212 Artificial Intelligence****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the possibilities, resources and application field for implementation of Artificial intelligence. Five main sections are studied: Heuristic search algorithms, Expert systems, Neural networks, Fuzzy sets, Genetic algorithms. Aiming to ensure basic knowledge, both in theoretical and practical parts. Incoming course links: Object-oriented programming, Non-procedural programming, Data structures and programming and Algorithm Development and Analysis.

Course content:

Fundamentals, means and philosophy of the Artificial intelligence. Solving problems, Search strategies, Heuristics search algorithms, Knowledge presentation, Expert systems, Neural networks, Fuzzy sets, Genetic algorithms and application.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course task is an extract from a complex practice-oriented problem. The final grade is formed on the basis of the course task evaluation, but mainly on the result from the exam that is a written test.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:** written

S01215 Internet Technologies**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / / 888 754, E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082/ 888 470, E-mail: mdimitrov@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: vvelikov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the resources, application field and approaches of modern programming languages for Internet. The focus is laid on the diversity of programming environments and tools, as well as on the established and continually innovated technological practices. Students get familiarized with the capacities and tools of Java programming language for Internet. A quarter of the course duration is intended for studying the capacities and tools of the .NET Framework as well, stating the analogy of the practical philosophy between them. Another significant course objective is to provide students with primary knowledge and solid base for studying further the special Internet technologies fields. Incoming course links: Object-oriented programming, Multimedia systems and technologies. Outgoing course links: Programming for Internet.

Course content:

After brief introduction to the principle resources and tools of the Internet programming, students gain knowledge on a main part of Java packages and classes used for programming of Internet applications. They are also familiarized with the resources and tools provided in .NET Framework.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course work consists of two parts and requires solving of a practice-oriented problem or it is a modular extract from such a problem. The final grade is formed on the basis of the evaluation of both parts of the course work, but mainly depends on the result from the exam including a written test and a theoretical question.

S01185 Probability and Statistics**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: eveleva@uni-ruse.bg

Pr. Assist. Prof. Elitsa Rumenova Raeva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 424, E-mail: eraeva@uni-ruse.bg**Abstract:**

Probabilistic models stay at the basis of self-learning systems and artificial intelligence systems. Today it is practically impossible to solve any practical problem containing quantitatively measurable values without the help of Statistics. The course objective is students to be familiarized with the probabilistic-statistical approach for studying and management of different practice events of accidental character, to learn the main statistical procedures and modes for achieving statistical conclusions.

Course content:

General terminology. Probability, Conditional probability, Random variables, Numeric traits, Frequently applied distributions, Law of large numbers, Central limit theorem, Introduction to mathematical statistics, Scores, Domains, Testing of hypothesis, Regression.

Teaching and assessment:

At lectures students learn the main theoretical statements, the most important applications, the methods of solving practical problems. The practice sessions consolidate the lecture material and develop students' technical skills. The course assignments allow students' individual work on suitable topics and practical tasks. Students do two 2-hour tests including solving of theoretical and practical problems. The final grade is formed on the basis of the continuous assessment results, the course assignment and the examination mark.

S01198 Practicum on Databases**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Katerina Georgieva Gabrovska-Evstatieva, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 470, E-mail: kgg@ami.uni-ruse.bg**Abstract:**

The course is studied in the 3rd year of specialty Informatics and Information Technologies. The practicum focuses on generating skills necessary to analyze, design, create and make use of databases. It is related to the theoretical course in databases and extends the practical skills for designing and developing relational databases. Team working and self-evaluation are encouraged during the practicum activities.

After completing the course students know how to design and develop a database in a concrete DBMS. The knowledge gained is helpful for preparing the diploma thesis and for future scientific work.

Course content:

DBMS – general information. Creating empty data base. Working with tables. Data types. Specifying field characteristics. Fields definition. Creating relationships among table. Data sorting and filtering. Data manipulation. Queries. Type of queries. Query properties. Forms. Form properties. Data insertion, edition and deletion through forms. Reports. Report properties. Report fields properties. Data base protection. Menus. Main form of the system.

Teaching and assessment:

The course is conducted through 2-hour practicum sessions per week and preparing of paper. For the practicum sessions the students are grouped in teams and work in a specific DBMS on the assignment that is allotted as sub-tasks of the required paper. The completed tasks are reported to the lecturer in due time.

The final grade of the continuous assessment is based on the paper mark and student's activities during the term.

Weekly classes: 0lec+0sem+0labs+2ps+ca**Type of exam:****S01199 Practicum on Data Structures and Programming****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc Prof. Galina Evgenieva Atanasova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course is intended for students from the 3rd year of study. Its main objective is to build up skills for using complex data structures in solving concrete practical problems. This practicum follows the course of the same name and gives students an opportunity to practice team work. Special attention is paid on the realization of definite algorithms applying different methods and using various data structures. The comparison of different solutions is used for finding the most proper method and structure applicable for a given problem.

Course content:

Stack and queue representation. Applications. Linear list representation. Binary trees. Traversals. Application. Graphs. Representation. Traversals. Shortest paths. Development of methods and program implementation of a comparatively complex problem.

Teaching and assessment:

The course includes practicum and a written paper. The practicum classes are held for 2 lesson weekly. During the first half of the term students' teams solve simple problems on concrete themes. The second half is focused on solving a complex problem requiring to make a choice for using a definite data structure, development of methods for solving the problem and its program implementation. The course ends with a continuous assessment formed on the basis of student's results during the term.

Weekly classes: 0lec+0sem+0labs+2ps+ca**Type of exam:** written

S00887 Practicum**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist.Prof. Katerina Georgieva Gabrovska-Evstatieva, PhD, Department of Informatics and Information Technologies

tel: 082 / 888 470, E-mail: kgabrovska@ami.uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+2ps+ca**Type of exam:****Abstract:**

During this Practicum students design an IT Information system based on the knowledge gained from the subjects studied to that stage. The organization of the individual student's work within the Practicum follows the recommendations of the Rational Unified Process (RUP). The course objective is students to be able to design and develop artifacts for phase elaboration within the frame of a complete software system.

Course content:

Project assignment to a team. Roles and tasks of each team member. Project planning: requirements, activities, classes, diagrams sequence and teams collaboration. Specification of the data model. Schedule of task testing, test cases and test scripts. IT system development. Tests and test documentation. Project completion and submission.

Teaching and assessment:

The practice and seminar sessions aim to deepen students' knowledge on subjects concerning the development of IT systems. Each student is allotted an individual task and is trained to develop relevant skills for phase collaboration. The continuous assessment is based on student's work during the practice sessions (40%), the results from the team task fulfillment and defence (30%) and the results from the project phase representation (30%).

S01191 The Number Theory**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Antoaneta Tileva Mihova, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: amihova@uni-ruse.bg

Pr. Assist. Prof. Todor Petkov Mitev, MSc, PhD, Department of Mathematics

tel.: 082 / 888 634, E-mail: tmitev@uni-ruse.bg**Weekly classes:** 2ec+2sem+0labs+0ps+ca**Type of exam:** written**Abstract:**

The knowledge of Number Theory is useful for specialists in Informatics and Information Technologies. The modular Arithmetic, an essential part of the course, is in the base of the mechanical presentation of any number. The origin of Informatics is closely connected with Mathematics and the proof for it is the elementary number theory. The course is based on the courses of Algebra and Discrete Structures. The course on Design and Analysis of Algorithms and the course on Coding Theory could rely on Number theory.

Course content:

Divisibility of integers, g.c.d and l.c.m. Prime integers. Fundamental theorem of Arithmetic. Congruences. Fermat and Euler theorems and their applications. Congruences with one unknown. Systems of first degree congruences. Congruences of arbitrary degree. Congruences of second degree modulo a prime number. Gauss law of reciprocity of quadratic remainders. Chain fractions. Diophantus first degree equations with two unknowns. Pell's equation.

Teaching and assessment:

If possible, most of the practical tutorials are performed using the system *Mathematica*. One two-hour control work takes place. During the exam the student works on 1 problem (chosen among 2) analytically and with the system *Mathematica*. Students prepare a term paper which is obligatory for the term validation. The forming of the final mark is defined in the teaching program.

S01260 Coding Theory**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics****tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg****Abstract:**

The course is basic for students of IIT study program. It is closely related to one of the basic problems of the modern Informatics and Information Technologies. It is based on the knowledge gained from courses in Algebra, Discrete structures, Programming and Number theory. This course provides students with important tools for problem modeling in computer sciences.

Course content:

Introduction to error correcting codes and linear codes, encoding and decoding with a linear codes, Hamming codes, perfect codes, Cyrillic codes.

Teaching and assessment:

The course is conducted by lectures and practice sessions. A major part of theorems are given without proofs, referring to suitable examples and problems. Students' progress is observed by regular feedbacks at lectures and practice sessions. Students are given two test papers and a course assignment which are evaluated by a six-score table. The continuous assessment mark is based on the test results and the course assignment mark.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**S01414 Introduction to Management****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Management and Business Development

Faculty of Business and Management

Lecturers:**Assoc. Prof. Emil Nikolov Kotsev, MEcon, PhD, Department of Management and Business Development****tel: 082/ 888 617, E-mail: ekotsev@uni-ruse.bg****Abstract:**

The course Introduction to Management aims to provide students with expertise on fundamental themes selected from the wide range of management topics. The teaching material is designed in accordance with the students' aspirations of getting theoretical knowledge in the field of organizations and fundamental, management functions. The course is relatively self-dependent in the curriculum of specialty Informatics and Information Technologies. However, it is useful to build on knowledge and skills acquired in Economics and to be a prerequisite for E-business. The course links with the demand of knowledge for practitioners, and holds out opportunities for career development.

Course content:

The course includes the following topics: Management – history of theory and practice; Planning; Organizing; Motivation, Control, Decision Making, Strategic Management, and Management of Human Resources.

Teaching and Assessment:

During the learning process the topics are explained through traditional lecture methods. They are supplemented with visual aids and appropriate examples. That supports purposeful conducting of the seminars. The seminars and the lectures are organized in parallel. The instructor who carries out the seminars does a continuous assessment based on attendance and student's participation in discussions. The quality of submitted papers, the extent of acquired knowledge and practical skills are evaluated too. The final evaluation is based on 4 separate assessments, which enable high grade objectivity.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written and oral

S01419 Project Management**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Management and Business Development

Faculty of Business and Management

Lecturers:

Assoc. Prof. Milena Peneva Kirova, PhD, Department of Management and Business Development

tel.: 082 / 888 726, E-mail: mkirova@uni-ruse.bg

Pr. Assist. Prof. Daniela Nikolaeva Yordanova, MA, PhD, Dept. of Management and Business Development

tel.: 082 / 888 520, E-mail: dyordanova@ecs.uni-ruse.bg**Abstract:**

Project management, with its focus on the accomplishment of unique outcomes with limited resources under critical time constraints, is an important aspect of contemporary operations management. This course is designed to teach the basic principles of good project management and provides students with the knowledge and skills to participate effectively in project teams. The course content has incoming relations with "Marketing", "Management" and other courses contents and outgoing relations with the development of bachelor thesis and future practice.

Course content:

The course focuses on such topics as: the essence, objective, and main functions of project management, types of public and private projects. Emphasis is placed on the project management principles, project definition, and project design. Continuing attention is paid to detailed planning and scheduling, project team building, fund raising, risk management and quality management. Concepts are applied to monitoring and project completion.

Teaching and assessment:

Most of the teaching is by lecturers introducing the main issues of project management. Practice sessions help students consolidate the knowledge they gain at lectures. Computer software packages are used for project management training. Authentic project management forms help task completion. By the end of the second week of the term the students have an essay assignment, which is an individual task based upon all topics discussed in the practice sessions. The essay must be 7 to 8 pages long and should be submitted before the end of the term. The final grade is formed as the average of the essay mark and the written exam mark.

S01420 Public Relations**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of European Studies and International Relations

Faculty of Business and Management

Lecturer:

Pr. Assist. Prof. Nataliya Trofilova Venelinova, PhD, Department of European Studies and International Relations

tel.: 082 / 888 810, E-mail: nvelelinova@uni-ruse.bg**Abstract:**

The aim of the subject is to provide basic knowledge on the nature of Public relations (PR) as a social communication technology, its subject area and the range of its application in the practices of public institutions, commercial and non-commercial organizations.

Course content:

The subject content includes the following: origin and formation of PR; definitions and basic notions; the RACE-algorithm as a technological PR-process; nature of the audiences, type and situation segmentation; communication of PR and types of communication; barriers for efficient communication; media and techniques for relations with the mass media; corporate PR and image; public matters, problem lobbying and management; corporate culture, corporate identity and PR; PR and the internal communication; social responsibility and sponsorship; PR-campaign; PR in crisis; specialized PR; ethic standards for practicing PR.

Teaching and assessment:

These include three contact forms: lectures, seminars and paper (P). The lectures present the theme system of the subject and formulate the issues to be discussed and practically interpreted. The seminars reveal the practical potentials of the subject matter as regards the real communication behavior of the organization. The assigned paper (P) stimulates the application of knowledge for the solution of inherent PR problems such as: audience segmentation, image analysis, planning PR activities.

The final assessment consists of a test (exam), which includes not only multiple choice but also open-ended questions and a practical case. The term mark is based on test (70%), presentations (10%), and P (20%).

S01444 History of Mathematics and Informatics**ECTS credits:** 5**Assessment:** exam**Departments involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Julia Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg**Weekly classes:** 2lec+2sem+0labs+0ps+ca**Type of exam:** written**Abstract:**

The subject History of Mathematics and Informatics is elective. The aim of the course is to present the historical development of the basic ideas and events in Mathematics and Computing from the ancient to 20th century such as the development of notions for numbers and counting systems, geometry, solving algebraic equations, mathematics in 18th and 19th centuries and the development of the mathematical analysis, the development of computer technics.

Course content:

History of mathematics in Babilon, Egypt and ancient Greece. History of mathematics in XVII, XVIII and XIX centuries: Cardano, Decart, Euler, Lagrange, Gauss, Cauchy, Weierstrass. Mathematics, computer science, and computer technics in XX century.

Teaching and assessment:

The educational process is realized by lectures and seminar classes. Appropriate items of history of mathematics and computing science are presented using multimedia, overheads and web based materials.

S01446 Human–computer Interaction**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 /888 754, E-mail: datanasova@ami.uni-ruse.bg**Weekly classes:** 2lec+0sem+0labs+2ps+ca**Type of exam:****Abstract:**

The main objective is to familiarize students with the main principles, approaches and techniques for designing and developing human-computer interactions (HCI). The stress is placed on the project building and the testing methods of prototype development and evaluation, as well as on the psychological aspects of the HCI. Students are involved in discussions about the effects of human factors on interface designs and development of applied software; methods and techniques for user-centered and analysis-based structural design of interaction; HCI evaluation.

Course content:

Introduction to HCI. HCI components. The human aspects of HCI. Cognitive models for HCI. Visual perception and representation. Concentration and mental models. Interface metaphors and conceptual models. User interface design aspects. Principles and models of user-centered design. Structural design frame. Design supports. Principles and rules. Instructions, standards and metrics. Design costs evaluation. Evaluation role. Data accumulation – methods and techniques. Experiments and standardization. Expert assessments.

Teaching and assessment:

The course includes problem-oriented themes which are put forward for discussion. Practice session accent is place on the individual student's work. Students deal with solving problems related to designing and creating of HCI. Each student individually develops software user's interface of a software system as a course assignment. The course ends with a continuous assessment mark, formed on he basis of the test papers results (T_1 and T_2), the course assignment result (ca) and student's activities mark during practical sessions (ps) in accordance with the formula: $0,3(T_1+T_2)+0,4ca+0,3ps$.

SB10019 Image Processing**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the basic problems and principles of image processing. Special attention is paid on the methods for raster graphical image compression. The course themes refer to problems and tasks which are often encountered in practice on using digital images. The course helps students get profound knowledge and use the computer techniques in fields where the raster graphical images are applied, i.e. the computer graphics, robot vision, medical engineering, etc.

Course content:

Introduction to image processing. Hardware components of image processing systems. Basic terminology and principles for digital images processing. Rasterization, level quantization, digital image parameters. Image transformations. Image enhancement - spatial and frequency domain methods. Image restoration. Image segmentation. Representation and description. Texture. Principles of image recognition and interpretation. Digital image compression.

Teaching and assessment:

Students attend lectures and practice sessions. Students get individual tasks related to the lecture material. The algorithms are implemented in a chosen programming language and environment. Students apply free or licensed software for applying more complex methods of image processing and making comparative analysis of the results.

SB10020 Programming Languages, Automation, Computing**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 /888 754, E-mail: datanasova@ami.uni-ruse.bg

Pr.Assist.Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The course goal is to equip students with knowledge for carrying out quantitative comparative analysis of the main approaches for programming based on their computation models. Some important problems of the computation models are discussed as well as the issue for choosing the appropriate model for programming when processing definite data structures.

Course content:

Relations. General Algebra. Theory of automata, and formal languages. Determined and nondetermined finite automata. Theory of algorithms. General Computational Model. Turing Machine, and Turing - Church Thesis. 'While' program and problems of the structural programming languages. Functional program, and problems of programming language ML. Logic program, and problems of programming language Prolog. Control production system, and problems of programming language Net. Insolubility, complexity, the classes P and NP, PN.

Teaching and assessment:

Each group of lectures ends with a summary with an accent on the main points. During the seminar sessions students solve problems related to the material taught. Each seminar session begins with a short introduction to the theory and an explanation of the algorithm for implementing the task. The course ends with a written examination. The final mark is based on the results from the written examination, the course work and the continuous assessment.

S01475 Programming for Internet**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 470; E-mail: mdimitriov@ami.uni-ruse.bg**Abstract:**

The course is studied as Elective subject and its objective is students to be familiarized with the resources, principles and approaches of the modern programming for Internet. The focus is laid on the diversity of programming environments and tools, as well as on the established and continually innovated technological practices. Students get familiarized with the capacities and tools of .NET Framework for Internet programming. Another significant course objective is to provide students with primary knowledge and solid base for studying deeper the .NET Framework as well as the special Internet technologies fields. Incoming course links: Object-oriented programming, Multimedia systems and technologies, Internet Technologies. The knowledge gained from attending the course is helpful for preparing diploma projects and future work careers.

Course content:

After brief introduction to the principle resources and tools of the Internet programming, students gain knowledge on the basic language tools and constructions of C# and the focus is laid on studying the programming and testing environment as well as on a main part of the package structure and classes for implementing basic applications of the .NET Framework.

Teaching and assessment: The practice sessions follow the theory taught at lectures. The course assignment requires solving of a practice-oriented problem or it is a modular extract from such a problem. The final grade is formed on the basis of the evaluation of the course assignment and the results from three test papers which are to be implemented on computer in the integrated environment.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:****S01481 Web Design****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the elements for designing a website and web-based applications. The prerequisite for studying the course is the knowledge gained from the following courses: Object-oriented programming, Software engineering, Multimedia systems and technologies, Internet technologies

Course content:

Functionality and efficiency of a website. Problems and solutions. Website designing process. Resources control. User-oriented design. Target group, platforms. Data structuring. Contents arrangement. Components, techniques, restrictions, problems. Design templates. Basic principles for programming a website. Website elements. Application of website coding. Making choice for using proper tools in designing and coding of web-based application. Testing and evaluation of web-based application, web standards, security, search engines, products used for designing websites, development of the Web. Reconstruction of media space.

Teaching and assessment:

The course is conducted through lectures, practice sessions and course task. The lectures give theoretical knowledge on the main requirements and statements for making preliminary preparation, data gathering, design features and development of web-based application. Practice sessions are held in computer labs where students apply theoretical knowledge into practice. The course task is individual and it is prepared as homework. Students get tutorials for developing the course tasks.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:**

SB10021 Computer Linguistics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 /888 754, E-mail: datanasova@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course introduces students to the automated analysis of texts, text generation, discourse and dialogue, document processing, machine translation, non-verbal communications, speech analysis and synthesis, speech generation. Theoretical knowledge and practical skills acquired in the field of computer linguistics can successfully be applied for developing of real systems. The course incoming links are with informatics courses taught in earlier terms. The knowledge gained from studying computer linguistics is helpful for developing bachelor theses by graduates.

Course content:

Main themes: Basic statements in linguistics. Speech recognition. Text identification. Basic grammar categories in the Bulgarian language. Language analysis. Language generation. Text and speech generation. Discourse and dialogue. Documents processing. Machine translation. Non-verbal communications. Speech encoding and decoding. Mathematical methods. Language resources. Evaluation of language processing results.

Teaching and assessment:

The lectures are 2 hours per week. The main theoretical themes are taught through lectures. At the practice sessions students solve problem cases under the lecturer's supervision on topics included in the syllabus. Students reinforce the knowledge acquired at the lectures by studying methods and software tools for formal language processing. Students' knowledge is continuously assessed in the practice sessions by doing tests. The final grade is based on the results from the exam.

S01501 Client-Server Technology**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Plamen Kirilov Manoilov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 646, E-mail: pmanoilov@ecs.uni-ruse.bg**Abstract:**

The course aims to provide students with knowledge and skills for the implementation of client-server technology, including work with remotely-based databases. Deals with applications written in Java. The technologies for distributed computing RMI and CORBA, the technologies JDBC and others are learned. Students learn about the types of drivers for implementation of JDBC. The course builds on the basic knowledge in Programming, English, Databases, Component Oriented Programming and Internet Technologies. The knowledge acquired is used for diploma project and future practice of bachelors graduates.

Course content:

Client-server technology - architectures. Client-server architectures in the business environment. Butler's Pyramidal model. Technology JDBC. Client-server frameworks. Object Request Brokers. RMI и CORBA technologies. Drivers for implementation of JDBC. Architecture and configuration of Apache-Tomcat. Methods for setting status-codes in JSP. Filters in JSP. Methods for session tracking in JSP. Security.

Teaching and assessment:

The teaching is organized in: lectures, practice sessions, course work. The lectures explain the theoretical fundamentals of the material and give suitable examples. The students should be able to work alone and develop simple applications during the practice sessions, which are in computer labs. The course finishes with a continuous assessment mark. It is computed as a weighted sum of two control works (0.4) and the course work (0.2).

S01218 Practicum on Software Engineering**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gea@ami.uni-ruse.bg**Abstract:**

The course is included in the group of the 6th term's Elective subjects for specialty "Informatics and IT" and its objective is to consolidate the knowledge and skills gained in the foregoing compulsory course of the same name. Students apply the acquired knowledge and skills for developing programming systems and they practice working in teams. The accent is placed on the individual efforts for solving specific software problems. After studying this course students should be able to design and develop software systems; they should have practiced and learnt working in teams.

Course content:

Students get guidelines for developing individual course assignments on different themes. Technology of course work. Methods of evaluation. Forming work teams. Data and system models. Model description. Specification development. Software system design. User interaction design. Prototype system development. Prototype testing. Software documentation. Software cost estimation.

Teaching and assessment:

Students form work teams for developing a software project as a course assignment. Students work on project specification, design, data input, program testing, project description and defence. The course ends with a continuous assessment grade formed on the basis of student's activities during the practicum sessions (50%), course assignment mark (20%) and project defence (30%).

Weekly classes: 0lec+0sem+0labs+2ps+ca**Type of exam:** written**S01245 Practicum on Computer Networks and Communications****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bgAssoc. Prof. Georgi Valentinov Hristov, PhD, Department of Telecommunications
tel.: 082 / 888 663, E-mail: ghristov@uni-ruse.bg**Abstract:**

The course objective is students to get practical knowledge and skills in the field of local area networks (LAN) and wide area networks (WAN) – functioning, building methods, control and security. Based on one of the most widespread operating systems – LINUX, the course themes are grouped in two parts. In the first part students study the file system features, files and directories security, command interpreter resources, Linux editing tools. The second part of the course is addressed to administrating Linux computer networks. The focus is put on the usage of network functions, protocols and on the building means, settings and maintenance of LAN and Internet.

Course content:

Introduction to Linux, Linux file system, Command interpreter, User system management, Administrating TCP/IP computer networks, Static and dynamic routing, Names in internet, Service configuring in internet, Security in internet.

Teaching and assessment:

Practice sessions are conducted in computer labs under the supervision of an assistant professor/instructor. After discussing important course topics students implement individual tasks in practice.

S01244 Practicum on Non-procedural Programming**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bgAssoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies
tel.:082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is students to extend the knowledge and skills acquired on studying Logic and Functional Programming in the 4th term. The first part of the course focuses on teaching a new functional programming language (Haskell, Lazy, Goffer) and its possibilities. The second half of the course places an accent on the new application fields of the logic programming and the untaught capacities of the Prolog language. During the practice sessions students deepen theoretical knowledge, develop and test programs in relevant programming language. Incoming course links: Introduction to Programming, Data Structures and Programming, Discrete Mathematics, Non-procedural Programming.

Course content:

Functional programming: Introduction to programming using a new language (Haskell, Lazy, Goffer). Similarities and differences between LISP and the new language. First order functions. Programming language environment. Data types. Input-output. Lists. Tree-like structures. Modules and abstract data types (ADT).
Logic programming: Using PROLOG for designing Artificial Intelligence systems, Planning systems, Natural language processing, Development of elementary expert system with PROLOG.

Teaching and assessment:

Teaching is carried out through practice sessions and a course task. Practice sessions are conducted in computer labs. Each student works on individually assigned task that includes compiling a program and running it on computer. The program should be realized in relevant language (Haskell, Lazy, Goffer, PROLOG). The course tasks and helpful references are given in the beginning of the course. Students can get tutorials for developing the tasks.

S01518 Computer Modelling**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velina Stoyanova Bozduganova, MEng, PhD, Department of Technical Mechanics
tel.:082 / 888 572, E-mail: velina@uni-ruse.bg**Abstract:**

Students study the principles and methods of computational technology for applied science research as a combination of mathematical modeling and numerical experiments. Emphasis is laid on computer modeling of objects, phenomena and processes characteristic for natural sciences, humanities, and for Mathematics. Special attention is paid on solving model problems using the MATLAB® software product. The focus is put on the application of the synthetic optimizing approach as means and aim of computer modeling.

Course contents:

Introduction to computer modeling. Optimization technology in modeling. Methodology of mathematical modeling. Methodology of numerical experiments. Examples: models of Newtonian Mechanics, modeling of processes in biological, economical and social systems; computer modeling of psychological phenomena.

Teaching and assessment:

The course is conducted through lectures and practice sessions held in computer labs, equipped with MATLAB® software product, as well as individual consultations on the assigned course work that is submitted as a written report. The course ends with an exam. The final grade is formed on the basis of the results from the course work, its oral defence before the lecturer, the mark for the theoretical question development and student's activities during the practice sessions.

SB1524 Social-legal Aspects of the IT**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgPr. Assist. Prof. Anna Nikolova Nikolova, MA, PhD, Department of Civil Law
tel.: 082 / 888 434, E-mail: anikolova@uni-ruse.bg**Abstract:**

The course objective is to provide students with knowledge on the theoretical models and concepts related to the changes in economy, sociology, marketing, psychology and law consequent to the development of the new communication technologies. Students learn the issues of author's right, the significance of licenses and contracts permitting the use of software products and databases; the statements concerning legal problems which lead to criminal prosecution.

Course content:

The information society: basic theoretical concepts. The Cyberspace as a special social, psychological and cultural medium. Social-legal aspects of an individual's behavior in the information environment. Labour relationships in the new economic conditions. IT spheres of influence. Author's rights on software products. Rights on databases. Entitling the use of software products and databases. License contracts. Protection of author's rights and other related rights. Electronic statements, e-documents, e-signatures. Trademarks. Domains. Personal data protection. E-commerce legislation. Illegal content. Torrents. Computer crimes.

Teaching and assessment:

Lectures are conducted 3 classes weekly. During seminar sessions students discuss the important issues of a given topic with accent on a definite case study. The course ends with a written examination. The final mark is formed from the Examination mark and the participation in the Seminar sessions (0,6E+0,4sem).

SB10023 Information Technologies in Management**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Management and Business Development
Faculty of Business and Management**Lecturers:**Assoc. Prof. Alexander Petkov Petkov, MA, PhD, Department of Management and Business Development
tel.: 082 / 888 776, E-mail: apetkov@ecs.uni-ruse.bgPr. Assist. Prof. Miroslava Ilieva Boneva, MA, PhD, Department of Management and Business Development
tel.: 082 / 888 776, E-mail: mboneva@uni-ruse.bg**Abstract:**

The course builds up student's knowledge in the field of management and technologies needed for its information provision. The focus is placed on problems rising in the business sphere. Students study contemporary management technologies, the dependence and synchronization between management needs of information and the technologies for its delivery.

Course content:

Information technologies in business. Information system analysis. Information technologies in management of business organizations. Enterprise resource planning and management systems. Marketing information systems. Manufacture information system. Finance information system. Human resources management system. Decision support information system. Executive information system. Database of management information system.

Teaching and assessment:

The lecture material provides due theoretical knowledge for carrying out the practice sessions. Students practice specific techniques for management data gathering, processing and analysis. They get acquainted with different structures of management information systems, designing technologies and application. Practice sessions are held in computer labs, where students gain knowledge on the main functions of the modern information systems and work out exemplary solutions for management data processing.

S01538 Programming Mobile Devices**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082/ 888 754, E-mail: rir@ami.uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The course aims at giving the students knowledge and skills about types of mobile devices and their programming. Two programming approaches are addressed: Java/Android/Android Studio and in the Microsoft Visual Studio environment. The course steps on basic knowledge in maths, English, programming and depends on: Component oriented programming, Programming for Internet and Internet technologies. The acquired knowledge will be used in the diploma project and future practice of the graduates.

Course content:

Introduction. Types of mobile devices. Programming in Java/Android. Developing a simple application. User interface: Layouts, widgets, dialogs, menus. Views, activities, services and intents, broadcast receivers, content providers. Phone hardware using. Graphics, animations and multimedia. File system, flash memory. Threads and timers. Network programming. DataBases. OS Windows 10 and mobile possibilities. WPSilverlight and UWP.

Teaching and assessment:

The teaching is organised in lectures and practice sessions. The lectures explain the theoretical foundations of the material and give suitable examples. The students should be able to work alone and develop simple applications during the practice sessions, which are in computer labs. The course finishes with a continuous assessment grade. It is computed as a weighted sum of two control tasks (0.4) and the practice work (0.2).

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:** written**S01539 Geographical Information Systems****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Georgi Nikolov Krastev, MEng, DTSc, Department of Computing
tel.: 082 / 888 672, E-mail: gkrastev@ecs.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge about geographical information systems, their basic applications and components. The course provides students with the possibility to experience operating with concrete software products and lays the foundations for professional growth in such a dynamically developing field.

Course content:

History of GIS, basic terminology, functionality, components and applications. Data base with geographically referenced information. Meta data. Main functions. Basic data formats. Operation with geographically refined data. Basic cartography principles. Creating maps. Layers and symbols, classification methods and styles. Labels and annotation. Geo-coding. GIS data base design. Main resources of geographically referenced data and methods of application. Validation of geographically referenced data. Data analysis in 3D. Cartographic algebra. Raster data base. Topographic analysis. Distances. Visualization techniques. Image processing. Perspectives of GIS design.

Teaching and assessment:

Lectures are 2 hours weekly. Practice sessions are 3-hours weekly. Each student gets a course work that has to be worked out as homework. Course works are defended and evaluated in the end of the course. Students do two test papers on theory and practice-oriented problems. The course ends with a continuous assessment mark. The final grade is formed as a sum of 0,7 of the test paper results, 0,1 of student's activities mark and 0,2 of course assessment mark.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:**

S01544 Visual Programming**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 214; E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the programming language “Visual Basic for Applications”; to efficiently use its applications in MS office environment; to be able to develop their own applications. Prerequisite for studying it is the knowledge acquired from the course “Mathematics” in the 1st academic year as well as the Object-oriented programming. The knowledge and skills gained from this course are the basis for developing the assigned tasks and projects, as well as for preparing the diploma thesis and for successful future career.

Course content:

Introduction to VBA. Programming for MS office. VBA and objects in MS office. Data types. Macros creating and editing. Built-in functions and expressions. Commands for assigning. Commands for control. Arrays. Introduction to objects and collections. Procedures and functions. Projections and modules. Designing of interface. Menus. Dialogue windows. Elements of dialogue windows. Events. Methods.

Teaching and assessment:

Lecture theory illustrated with relevant examples is consolidated at practice sessions. The continuous assessment at practice classes aims to provide students' feedback and keep them in line with the course progress. The final grade is formed on the basis of the end test result, the entry test result, practice session activities and course work mark.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:****S01545 Programming in Assembler****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Plamen Kirilov Manoilov, MEng, PhD, Department of Informatics and Information Technologies
tel.:082 /888 646, E-mail: pmanoilov@ecs.uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 470; E-mail: mdimitriov@ami.uni-ruse.bg**Abstract:**

The purpose of this course is to acquaint the students with the main principals of how the computer works, which are not obvious to the high level programming languages. The architecture of the 80x86 and Pentium processors is discussed, as well as some of the main instructions for data transferring, arithmetical and logical instructions, input-output and others.

Course content:

Architecture of the processors 80x86 and Pentium; instructions for the processors 80x86 and Pentium; conditional and cycled programs; macros; BCD arithmetic; files; assemblers and linkers.

Teaching and assessment:

The lectures address basic theoretical statements related with programming in Assembler. The labs are for program realization of the problems. Two written examinations are taken – in the middle and at the end of the term. During the seminars the degree of mastering the theory and the possibility for solving problems is also assessed.

Weekly classes: 2lec+0sem+0labs+3ps**Type of exam:**

S01546 System Programming**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Pr.Assist.Prof. Magdalena Hristova Andreeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 470, E-mail: magie@ami.uni-ruse.bg**Abstract:**

The course introduces students to the system programming logics. The focus is placed on the substance, principles, methods and means of the system programming languages. Students study in details pointers and their application in address mathematics and operations with functions, strings, arrays, structures and files. The possibilities of the toolkits and methods are taught and illustrated with programming language C (K&R C, ANSI C and C as sub-set of C++). Students acquire practical skills for solving problems using "C" programming language.

Course content:

Organization and main modules in Windows. Optimizing the working environment. Inter-processors communications. Signals. Program channels. Common memory. Semaphores. Messages. Classical problems and their solving with addressed techniques. Threads. Differences between threads and processes. Thread handling. Methods for synchronizing competitive threads. Multi-tasks and multi-threads of problems. Priorities, Specialized modules. Memory organization and control. Dynamical memory distribution for processes; Security and protection; Model for protection.

Teaching and assessment:

The lectures address basic theoretical statements related with system programming. Each thematic group ends with summary and focuses on the main points. In the lab lessons programs realization is done. Each lab begins with analyses of the given problem. Two written examinations are taken – in the middle and at the end of the term. During the labs is also assessed the degree of mastering the theory and the possibility for solving problems.

S01553 State Exam**ECTS credits:** 10**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

All lecturers at the Department of Informatics and Information Technologies

Abstract:

The State Exam takes place before a State Examination Commission upon a preliminary approved syllabus which includes questions from the areas of: Informatics, Information Technology.

Course content:

The written state exam covers all major topics studied during the period of education and training in the areas: Informatics, Information Technology.

Teaching and assessment:

The students develop the topics from the studied areas and present them before the State Examination Commission.

S00083 Bachelor Thesis**ECTS credits:** 10**Assessment:****Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Consultants:

All lecturers from the Department of Informatics and Information Technologies

Abstract:

The state examination is held in front of the State Examination Commission in accordance with the approved syllabus, which includes main topics from all foundation courses.

Course content:

The State examination includes all main courses studied during the course of education.

Teaching and assessment:

The final year student takes the State examination which is evaluated by the State Examination Commission

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:**

**UNDERGRADUATE
STUDIES
IN
SOFTWARE ENGINEERING**

**PROFESSIONAL STANDARDS
OF A BACHELOR IN SOFTWARE ENGINEERING**

Degree Programme: Software Engineering
Educational Degree: **Bachelor**
Professional Qualification: **Bachelor in Software Engineering**
Term of education: **4 years (8 terms)**

The Software Engineering specialty at RU "Angel Kanchev" is intended for training specialists with higher education, possessing knowledge and skills in the field of design and development of modern software systems. Prepared personnel will be able to solve the main problems of the entire life cycle of creating quality and effective software applications. The curriculum was developed according to the requirements of the international professional organizations ACM and IEEE Computing Society and is a successful combination of informatics, mathematics and applied disciplines. There is a sequence of disciplines covering all aspects of software production, which is a guarantee of the good qualification of the graduates of the specialty. A characteristic feature of training in all disciplines is the organic inclusion in the educational process of computer-based technologies for learning and self-training, as well as very good practical training based on the most modern information technologies and a constantly updated material base. State-of-the-art licensed and freely distributed software installed on high-performance, networked computers is provided and used.

Students study modern programming languages and environments, data structures, algorithm design and analysis, computer networks, databases, distributed systems, web-based systems, mobile applications, artificial intelligence, project management, and more. They receive basic mathematical knowledge related to the specialty in the field of applied mathematics. Mandatory fundamental disciplines in the curriculum provide the necessary broad-based training in computer science and software technologies. Electives allow for more in-depth training. Optional disciplines provide the opportunity to study specialized courses in the fields of mathematics, economics, business, law, psychology, language learning and others.

Graduates will master basic methods for analysis, specification, development, testing, validation, documentation and maintenance of software systems. They will be able to use and create software in various areas of human activity, applying modern approaches, models and techniques to build appropriate solutions, demonstrate abilities for good communication and conflict resolution. Software engineering majors will possess skills in software project management and teamwork. Those who wish can also acquire pedagogical legal capacity through the forms of optional training.

Graduates of the specialty will be able to work effectively as designers and software developers independently and in a team. They will have professional competence and skills in designing, developing and managing software systems.

Bachelors in Software Engineering will have the opportunity for a wide professional exposure in software and other companies as independent professionals and team members. They will be able to apply in practice the studied modern practices and modern tools for analysis, design, implementation, testing and implementation of modern software systems. They will be able to occupy any position in companies developing software systems, as well as in business organizations or in public administration as analysts, designers, developers, project managers, experts, consultants and others. Specialists with a bachelor's degree will have the necessary preparation and the opportunity to continue their studies in the next master's degree in a wide range of specialties in natural and computer sciences in all Bulgarian universities.

CURRICULUM
OF THE DEGREE COURSE IN SOFTWARE ENGINEERING

First year

Code	First term	ECTS	Code	Second term	ECTS
S01034	Introduction to Programming	8	SB14895	Object Oriented Programming	8
S00848	Introduction to Informatics	4	S01083	Computer Architectures	6
S00701	Calculus I	6	S00854	Discrete structures	6
S01065	Linear Algebra and Geometry	8	S01089	Calculus II	6
S00856	English Part I	4	S01106	English Part II	4
Total for the term:		30	Total for the term:		30
S02791	Sports		SB13965	Sports	

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
S01118	Data Structures and Programming	7	SB14900	Software Modeling and Analysis	7
SB14896	Basic of Software Engineering	5	S01183	Computer Networks and Communications	5
S01899	Operating Systems	6	SB14899	Software Testing	5
S01246	Numerical Methods	5	S01182	Data Bases	7
S01181	English for Computing	3	S01184	Non-procedural Programming	6
Elective courses (students choose one course)					
SB14897	Coding Theory	4			
SB14898	The Number Theory	4			
Total for the term:		30	Total for the term:		30
SB13965	Sports		SB13965	Sports	

Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
S01192	Algorithm Analysis and Design	5	SB14904	Web Design and multimedia technologies	6
S00867	Component Oriented Programming	5	S01215	Internet Technologies	6
SB14901	Software requirements and specifications	6	S01185	Probability and Statistics	5
S01122	Computer Graphics	7	S01212	Artificial Intelligence	5
Elective courses (students choose one course)			Elective courses (students choose one course)		
SB14902	Mathematical optimization methods	4	S01198	Practicum on Databases	3
SB14903	Operations Research	4	S01199	Practicum on Data Structure and Programming	3
Elective courses (students choose one course)			Elective courses (students choose one course)		
S01186	Practicum on OOP	3	SB16317	Fundamentals of Managements	5
S01245	Practicum on Computer Networks and Communications	3	SB17542	Communication Skills	5
Total for the term:		30	Total for the term:		30
SB13965	Sports		SB13965	Sports	

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
SB14906	Human-computer Interaction Design	7	SB16332	Management of Software projects	5
SB14907	Cloud Computing	6	S00084	Graduation Self-study	4
SB14908	Software Verification and Validation	8			
Elective courses (students choose one course)			Elective courses (students choose one course)		
SB14909	Practicum on Internet Technologies	3	S00907	Programming of Mobile Devices	4
SB14910	Practicum on Computer Graphics	3	S00906	Geographical Information Systems	4
Elective courses (students choose one course)			S00905	Visual Programming	4
SB14911	Web Server Applications	6	S00908	Computer Linguistics	4
SB14912	Cybersecurity and Data Protection	6	Elective courses (students choose one course)		
			SB14914	Social legal aspects of SE	3
			SB16333	Economics of SE	3
Elective courses (students choose one course)			Elective courses (students choose one course)		
			SB14916	Parallel Programming	4
			SB14917	Software Design Patterns	4
			SB14918	Big Data Processing	4
Graduation			Graduation		
			S01553	State Exam	10
			S00083	Bachelor Thesis	10
Total for the term:		30	Total for the term:		30
SB13965	Sports		SB13965	Sports	

Total for the course of study: 240 ECTS credits

S01034 Introduction to Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bgAssoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326; E-mail: ptx@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge for developing algorithms and programmes in C++ programming language. The course focuses on the main data structures in the programming language C++ and on the main operations with that data. Special attention is paid on algorithm development being the basic step for writing programs. The practice sessions aim at acquiring skills for developing algorithms and programs.

Course content:

Algorithm development. Main data types and operation in C++ programs. Controlling structures – branches, choosing a variant, cycles. Arrays and arrays of arrays, pointers, one-dimensional dynamic and multi-dimensional arrays, character strings. Functions. Recursive algorithms and recursive functions.

Teaching and assessment:

The lectures concentrate on the process of algorithm development, testing and verification and their implementation in C++. Students are given suitable examples and independent tasks to practise writing programs and develop new programs. At the practice sessions students write programs and do tests. Each student prepares a course assignment including tasks and presents them to the lecturer. Students get term validation after successful submissions of all assigned tasks. The examination is in a written form, but students defend their work orally. The test marks and the course work results are taken into consideration for the final examination mark.

S00848 Introduction to Informatics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 326; E-mail: gatanasova@ami.uni-ruse.bg**Abstract:**

The course is within the group of the compulsory subjects to be studied during the first semester by students from the bachelor degree programs of Computer Science, Informatics and Information Technologies in Business and Software Engineering. Its goal is to familiarize students with the essence, methods and tasks of Informatics, so that they can catch up with the required level of knowledge.

Course content:

Subject, methods and tasks of Informatics. Data structure and representation in computer. Principle of the program control. Files and file systems (FAT 16/32; NTFS). File formats. Files - backups, compressing, cryptography, data bases, SQL. Numerical systems. Boolean algebra. Elements of combinatorics used in Informatics. Numbers representation. Machine codes. Representation of fractions formats. Symbols representation and code tables. John von Neumann's principle. Methods of programs design. Stages of the programming design. Testing methods. Algorithms.

Teaching and assessment:

Lectures are conducted two hours once a fortnight. At the practice sessions students are trained to work independently. They are encouraged to perform the assigned tasks by themselves and when necessary they are assisted and guided by the teacher. Students' activities are continuously assessed so that they get final marks in the end of the semester. Each student writes a paper on an assigned topic associated with the subject domain. In the end of the course the paper is submitted and defended. The continuous assessment includes the marks from two tests. The final grade is formed on the basis of tests results, the paper mark and the assessment of the practice sessions work.

S00701 Calculus, Part 1**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yuliya Chaparova, MSc, PhD, Department of Mathematics,

tel.: 082/ 888 726, E-mail: jchaparova@uni-ruse.bg

Pr. Assist. Prof. Nikolay Dimitrov Dimitrov, MSc, PhD, Department of Mathematics,

tel.: 082/ 888 727, E-mail: ndimitrov@uni-ruse.bg**Abstract:**

The subject is basic for mathematical education in courses of Computer Science and Software Engineering. It is a base for further subjects as Mathematical Analysis II, Discrete Mathematics, Numerical Methods etc. The contents includes an introduction to Mathematical analysis.

Course syllabus:

Basic themes: sets of real numbers, basic elementary functions, limits of sequences of numbers and functions, continuity of functions, derivatives of functions and applications, Indefinite integrals.

Teaching and assessment:

The educational process is realized by lectures and seminars. In the lectures the educational material is theoretically presented and demonstrated by proper example problems. In the seminars the educational material understanding is controlled and skills for solving practical problems are developed. A term certification is obtained according to Interval rules for the educational activities. The exam test includes 6 problems from the educational material.

SO1065 Linear Algebra and Geometry**ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics,

tel.: 082/ 888 848, E-mail: evelikova@uni-ruse.bg

Pr. Assist. Prof. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics,

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg, office 1.404**Abstract:**

The current aims of the course are: to study basic mathematical facts and possibilities for their application using a computer algebraic system *Maple*. The material is presented in an accessible form, mainly without proof.

Course content:

Linear Algebra and Geometry presents basic mathematical concepts of linear algebra and analytical and synthetic geometry that are applied to analyze economic performance. It forms links with other mathematical, computer and economic disciplines such as Mathematical Analysis, Programming, Computer Graphics, etc.

Teaching and assessment:

The main mathematical concepts, their properties and their applications in problem solving methods Practical classes are held in computer labs and serve to: master the study material; developing skills for its implementation for task solving; developing skills to use specialized software to solve mathematical problems with an applied character.

S00856 English Part I**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Lecturer Krassimira Yordanova Ivanova, MA, Department of Foreign Languages

tel.: 082 / 888 803; E-mail: kivanova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps**Type of exam:** written and oral**Abstract:**

The course provides basic skills for oral and written communication in the foreign language in view of the students' field of study. New vocabulary connected with the basic terminology of the specialized subjects is acquired. General topics related to the field of informatics and computer science are considered. Skills to elicit essential information from a text and write a summary are developed. Students are expected to prepare and give a short presentation on a chosen topic related to computing or IT. A prerequisite for 'English Part 1' is an English course taken in secondary school.

Course content:

Living in a digital age. Computer essentials. Inside a PC system. Buying a computer. Input devices. Interacting with your computer. Display screens and ergonomics. Choosing a printer. Devices for the disabled. Magnetic storage. Specifics of technical English grammar and vocabulary.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester.

The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, giving a presentation and doing the tests. The final mark is based on continuous assessment.

SB14895 Object Oriented Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Rumen Ivanov Rusev, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: rir@ami.uni-ruse.bg

Assistant Prof. Boyana Nedkova Ivanova, MSc, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bg**Weekly classes:** 2l+0sem+0labs+3ps+1ca**Type of exam:** written**Abstract:**

The course is a continuation of the course "Introduction to programming". It focuses on the main concepts of object-oriented programming. The programming language C++ is studied in detail and especially the object-oriented part. Classes and objects are studied being the main categories, as well as the main concepts for working with them. The practice sessions aim at acquiring skills for developing object-oriented programs. The programs are implemented.

Course content:

Classes and objects. Components of classes – data members, functions' members, constructors and destructors. Objects and functions. Friends of classes. Derivatives of classes, inheritance. Streams. Pre-defined operators.

Teaching and assessment:

The lectures give the principles for development of algorithms using classes and objects, as well as their implementation in C++. They are supported with lots of exemplary programs and students have to independently modify the examples and write similar programs for training themselves in programming.

At the practice sessions students write programmes, verify them and do tests. Student's course work includes two problems for independent work that has is defended and evaluated on submission. The term is validated for students who defend successfully the course work.

S01083 Computer Architectures**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Computing

Faculty of Electrical Engineering, Electronics and Automation

Lectors:

Assoc. Prof. Milen Iliev Lukanchevski, MEng, PhD, Department of Computing

tel.: 082 / 888 674, E-mail: mil@ieee.org**Abstract:**

The course addresses architectural aspects of computer systems. Main terms and principles in computer architectures are discussed as well as organization of computations. Modern computer architectures are presented analytically and comparatively. Memory hierarchy and input-output subsystem structure are shown as well. Simulations and real systems are used at the seminars to gain more deep understanding.

Course content:

Computer Architecture Principles. Basic Components. Historical Perspective. Types of Computer Architectures. Computer System Base Structure. Accumulator, Stack and Register Architectures. IA32 Architecture. Working Modes. Computer Memory Hierarchy. Input-output System.

Teaching and assessment:

The lectures introduce main theoretical topics. Each group of lectures ends with conclusion of material and formulation of problems.

At the seminars simulations and real systems are used putting lectures to practice. Each seminar begins with formulation and analysis of problems. At very end the students are asked to summarize in written form their results. The information materials needed are given in electronic form to the students.

Weekly classes: 2l+0sem+0labs+2ps**Type of exam:** written**S00854 Discrete Structures****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics,

tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg**Pr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Mathematics,****tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg****Abstract:**

The course is basic for students of Informatics and Information technologies program. Its incoming course links are with General Algebra and Geometry. Students acquire fundamental knowledge about informatics, optimization theory, algorithm theory and their applications.

Course content:

Recurrent equations, abstract machines and automata, introduction to the coding theory.

Teaching and assessment:

The course material is presented at lectures, demonstrated with examples and practice-oriented applications. At practice sessions students gain skills for working independently over assigned tasks. The allotted paper develops students' knowledge for solving different problems and practice oriented tasks. The paper is evaluated acc. to a score table (0 to 20 scores) that is taken into account for the final grade. Students may not go for an exam if the continuous assessment results are very good or excellent and that mark may be considered as a final grade.

Weekly classes: 2lec+0sem+0labs+2ps+0.5se**Type of exam:** written

S01089 Calculus Part II**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Antoaneta Tileva Mihova, PhD, Department of Mathematics,

tel.: 082 / 888 226, E-mail: rk-mat@uni-ruse.bg**Assist. Prof. Nikolay Dimitrov Dimitrov, MSc, PhD, Department of Mathematic,s**tel.: 082/ 888 727, E-mail: ndimitrov@uni-ruse.bg**Abstract:**

Calculus - Part 2 is fundamental subject among the mathematical courses of the speciality. It is a continuation of the subject Calculus - Part 1. The main purpose of the course is students to get acquainted with the differential and integral calculus of functions of several variables. The outgoing relations of the subject are with Numerical methods, Probability and Statistics, and with other elective courses in mathematics and informatics.

Course content:

Function of several variables: differentiation, extremums, implicit functions. Multiple integrals and applications, Curve and surface integrals, Functional series.

Teaching and assessment:

Lectures present notions, properties, and main assertions of the material, supported by suitable examples and problems. Practice are built up in accordance with lectures. Students are given three test papers and a paper. A term validation is granted in case of regular attendance. The exam is written and includes 6 practical and/or theoretical problems. The subject is fundamental among the subjects in the basic module of the specialty Mathematics and Informatics. It is a continuation of the subject Calculus - Part 1. Its outgoing relations are with all mathematical subjects of the study program.

Weekly classes: 2lec+0sem+0labs+2ps+0.5se**Type of exam:** written**S01106 English Part II****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Lecturer Krassimira Yordanova Ivanova, MSc, Department of Foreign Languages,

tel.: 082 / 888 803; E-mail: kivanova@uni-ruse.bg**Abstract:**

'English Part 2' for Computer Science students extends the foreign language competence of students to cope with specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Authentic texts mainly are used to bring the learners closer to scientific style. Collocations with frequently used terms and notions are considered. Students prepare and give team presentations.

Course content:

Storage devices (optical discs and drives, flash drives); The operating system; Word processing; Spreadsheets and databases; The Internet and email; The Web; Chat and conferencing; Internet security; Graphics and design.

Teaching and assessment:

The practical exercises include the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the semester. The requirements for obtaining a semester validation signature are regular attendance, completing assigned tasks, participating in a team presentation and doing the tests. The final mark is based on continuous assessment.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written and oral

SO1118 Data Structures and Programming**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, e-mail: gatanasova@uni-ruse.bgPr. Assist. Prof. Kameliya Ilieva Shoylekova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 214; E-mail: kshoylekova@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge on complex data structures, data structure design algorithms and maintenance, application software. Reference practical cases are considered as data structure applications. Data structures and processing algorithms are considered conceptually at first and afterwards implemented in C++.

Course content:

Sorting and searching algorithms. Stack implementation and processing. Queue implementation and processing. Linear linked lists. Sorted lists. Binary tree. Binary search tree. Graphs. Presentations. Graph algorithms and applications.

Teaching and assessment:

The lectures focus on data structures in accordance with the syllabus. The accent is placed on data structure presentations, the applied basic operations and types of problems solved with the created data structure. Program implementation in C++. At practice sessions students design and test concrete practical cases using complex data structures. The course work is carried out individually in two stages as homework and it is presented in a pre-set time. Students do 3 tests on theory and practical cases during the term. The course ends with exam. The final assessment is formed on the basis of the results from the exam, course work and tests.

Weekly classes: 2lec+0sem+0labs+3ps+2cw**Type of exam:** written**SB14896 Basics of Software Engineering****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.:082 / 888 326, E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The course is included as compulsory in the third semester of specialty "Software engineering". The purpose of the training is to give students a basic understanding of software engineering. To acquaint students with principles in the development of large software systems. To give them knowledge of the whole process of developing modern software systems with an emphasis on the initial stages of development.

Course content:

Software engineering and its place as a share of knowledge. Basic concepts in software engineering. Software Process - Phases, models, modeling languages. Classic Life Cycle Models of a Software System. Waterfall model. Iterative and expanding software systems development. Prototyping. Spiral model Model of Gunther. Modern software development techniques. Flexible methodologies. Design of software systems. Software architecture. Introduction to UML. Software measurement. Software metrics. The Human Factor in Software Production. Legal aspects of software development.

Teaching and assessment:

Students have to read the written material on lecture topics in advance. Some details are discussed and suitable examples are given. The practice sessions are mainly for students' individual work. They solve problems from software engineering field. Developing a referral requires students to show that they can independently explore and describe a problem related to the specification, design and development of a software project. The course ends with exam. The final grade is based on the results from the exam (60%), practice sessions activities (40%).

Weekly classes: 2lec+0labs+2ps+2r**Type of exam:** written

1899 Operating systems**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vasilev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bgAssoc.. Prof. Valentina Nikolaeva Voinohovska, DSc, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: voinohovska@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge and skills about the main principles of design and functioning of the operating systems. At the lectures the theoretical material is illustrated with examples from different modern OS. The workshops are based on the two most widespread OS: Windows and UNIX. Their organization and way of operation are addressed and compared.

Course contents:

Introduction to OS. OS classification. Structure of OS. Processes and threads. Interaction between processes. Parallel processes. Synchronisation. Solutions to classical problems. Mutual blocking. CPU management. Planning algorithms. Memory management. Virtual memory management and protection. Device management. Organization of I/O devices. File system management. Functions and structure of the file system. Multimedia OS. Distributed systems. Protection and security in OS.

Learning and assessment:

The lectures are 2 hours per week and the theoretic material is delivered at the lectures. The workshops take place in computer-equipped labs under the lecturer's supervision on the topics shown above. At the workshops the students can strengthen the knowledge given at the lectures by discussing the features of particular OS and running examples. The students' knowledge is continuously assessed at the workshops with tests. The final grade is computed taking into account the continuous assessment at the workshops and exam.

SB1246 Numerical Methods**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics,
tel.: 082 / 888 606, E-mail: eveleva@uni-ruse.bgAssoc. Prof. Ivan Radoslavov Georgiev, Department of Applied Mathematics and Statistics,
tel.: 082 / 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The main objectives of the course are: to give a basic knowledge in the theory of numerical analysis, numerical linear algebra and numerical methods for initial and boundary-value problems for ordinary differential equations; to develop skills for computer realization of the numerical methods using programming environment Matlab; to develop skills for intelligent application of approximation techniques to the types of problems that commonly occur in engineering and physical and computer science.

Course content:

MATLAB programming environment. Error analysis. Numerical methods of algebra: exact and iterative methods for solving SLAU, eigenvalues and eigenvectors. Approximation of functions, general problem of approximating functions. Nonlinear equations and optimization. Numerical integration and differentiation. Numerical solution of ODE: Cauchy problem – Runge – Kutta methods and multistep methods. Differential methods for boundary value problems for ODS.

Teaching and assessment:

The teaching is carried out by means of lectures and computer practice sessions. At the lectures the material is explained theoretically and illustrated by appropriate example problems. At the practice sessions the students solve theoretical and practical problems and use the programming environment Matlab for computer realization of the algorithms.

S01181 English for Computing**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Lecturer Krassimira Yordanova Ivanova, MA, Department of Foreign Languages

tel.: 082 / 888 803; E-mail: kivanova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps**Type of exam:** written and oral**Abstract:**

The subject English for Computing extends the foreign language competence of students with respect to specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Collocations integrating common terms and notions are considered. Students prepare and give individual or team presentations related to establish IT companies or distinguished specialists in the field.

Course content:

Desktop publishing systems; Multimedia; Web design; Computer languages; A career in computing; Networks; video games; New technologies; Future computers.

Teaching and assessment:

The practice sessions contain the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises - role-plays, work on authentic texts and in a computer room. Students are given two written tests during the term. The requirements for obtaining a term validation are regular attendance, completing assigned tasks, participating in a team presentation and doing the tests. The term mark is based on continuous assessment.

SB14897 Coding Theory**ECTS credits:** 4**Assessment:** continuous assessment**Departments involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lectures:

Assoc. Prof. Antoaneta Tileva Mihova, MSc, PhD, Department of Mathematics,

tel.: 082 / 888 727, E-mail: amihova@uni-ruse.bg**Weekly classes:** 2lec+1sem+0labs+1ps+1ca**Type of exam:** written**Abstract:**

The course is oriented for students in Software Engineering. The course is an introduction to the theory of error-correcting codes. It is based on the knowledge of Linear Algebra and Geometry, Discrete Structures and Programming.

Course content:

Hamming distance. Binary symmetric channel. Hadamar matrices and Hadamar codes. Encoding and decoding with linear codes. Syndrome decoding. Hamming codes, Golay codes and Reed- Mullar codes.

Teaching and assessment:

At the lectures basic concepts and facts of coding theory are illustrated with many examples. At the seminars the students solve tasks related to lecture material. At the beginning of the semester each student is given an individual course assignment. Two written tests are made through the semester. The final continuous assessment is the average of two written tests, if the student is defended the course assignment.

SB14898 The Number Theory**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Antoaneta Tileva Mihova, MSc, PhD, Department of Mathematics,

tel.: 082 / 888 727, E-mail: amihova@uni-ruse.bg**Abstract:**

The knowledge of Number Theory is useful for specialists in Informatics and Information Technologies. The modular Arithmetic, an essential part of the course, is in the base of the mechanical presentation of any number. The origin of Informatics is closely connected with Mathematics and the proof for it is the elementary number theory. The course is based on the courses of Algebra and Discrete Structures. The course on Design and Analysis of Algorithms and the course on Coding Theory could rely on Number theory.

Course content:

Divisibility of integers, g.c.d and l.c.m. Prime integers. Fundamental theorem of Arithmetic. Congruences. Fermat and Euler theorems and their applications. Congruences with one unknown. Systems of first degree congruences. Congruences of arbitrary degree. Congruences of second degree modulo a prime number. Gauss law of reciprocity of quadratic remainders. Chain fractions. Diophantus first degree equations with two unknowns. Pell's equation.

Teaching and assessment:

If possible, most of the practical tutorials are performed using the system Mathematica. One two-hour control work takes place. During the exam the student works on 1 problem (chosen among 2) analytically and with the system Mathematica. Students prepare a term paper which is obligatory for the term validation. The forming of the final mark is defined in the teaching program.

SB14900 Software Modeling and Analysis**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 326, E-mail: gatanasova@uni-ruse.bg**Abstract:**

The aim of the training is to present the principles and techniques for modeling and analysis of large software systems. To give students a basic understanding of the place of modeling and analysis in the life cycle of the software system. Students will be acquainted with the characteristics of the modeling and analysis of the different components of the computer systems as well as with the specifics of the different types of systems - real-time systems, systems managed by business processes / workflows, embedded systems, domains.

Course content:

Software systems modeling of and its place in the software life cycle. Basic concepts in modeling. Basic principles in modeling. Different views and patterns. Formal approaches to modeling and their application.. Introduction to Mathematical Modeling and Formal Notices. Types of models. Modeling information and data. Models of deviation in the behavior of the software system and its effect. Modeling of Domains. Modeling business systems. Embedded Systems Modeling. Real-time systems. Interface protocols. Basic Principles in Analysis of Software Systems. Correctness in the analysis process. Static analysis. Simulation. Model testing. Reliability analysis. Problem mode and tree error analysis. Formal analysis. Proof of theorems.

Teaching and assessment: The course includes lectures, seminars and practical exercises and a course assignment. During the lectures, the basic points of the subject are discussed and the basic principles and concepts are clarified. The seminars are devoted to the discussion of specific problems in the lectured material, related to individual stages and perspectives of the modeling of software systems. During the practical exercises attention is paid to students' independent work. Students decide assignments on the subject of the exercise independently, receiving assistance and counseling from the lecturer when necessary. Exercise activity is evaluated and at the end of the semester a summary assessment is made for each student.

The course ends with a written exam. The student receives a cumulative assessment of the control (K1 and K2) and the course assignment (KZ) of the following formula: $TK = 0,4 (K1 + K2) + 0,3K3 + 0,3PU$.

S01183 Computer networks and communications**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc.Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bg

Prof. Georgi Valentinov Hristov, MEng, PhD, Department of Telecommunications,

tel.: 082 / 888 663, E-mail: ghristov@uni-ruse.bg**Abstract:**

The course objective is to provide the students with working knowledge of the basic tasks, principles and methods used in telecommunication networks, as well as their main areas of application. The lectures include architecture, functionality, interfaces and protocols, which are main part of the modern telecommunication networks. Some of the lectures include information about the newest technologies used for data transmission. In addition a number of practical problems are discussed during the lectures. The lectures let the students know about different kind of method and techniques, which solve the above problems.

Course content:

Network Protocols and communications. Hierarchical Network design. Router Architecture. IPv4 addressing and structure of IPv4 addresses. IPv6 protocol – overview, motivation and basic characteristics. Fixed Length Subnet Masking and Variable Length Subnet Masking. IPv4 – IPv6 integration mechanisms. Switching process – basic switch configuration. Virtual Local Area Networks. Static and Dynamic Routing in communication networks. Network security – access control lists. Network Address Translation.

Teaching and assessment:

The topics of the lectures give the possibility to the students to get acquainted theoretically with the main issues of the communication networks. Students have the availability to practice their knowledge during the planned exercises. The department of Telecommunications has equipped laboratories with CISCO devices. During the practice, students create simulated models of communication networks, which are then investigated.

SB14899 Software testing**ECTS credits:** 5**Assessment:** exam**Department involved:**Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc.Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies,

tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bg

Pr. Assist. Prof. Metodi Lubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 470, E-mail: mdimitrov@ami.uni-ruse.bg

Pr. Assist. Prof. Sergey Dimitrov Antonov, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 475, E-mail: santonov@uni-ruse.bg**Abstract:**

The course aims to introduce students to the basic principles of designing, developing and executing software tests. During the course, different categories of tests are considered, thus giving students a thorough knowledge of the subject area. Attention is also paid to the various ways of automation.

Course content: Software testing. Relationship between quality assurance, quality control and software testing. Types of software tests. Unit testing. Test driven development. Unit testing and mock objects. Version control systems. Continuous integration. Software testing as part of Continuous Integration. Integration Tests. End-to-end tests. Test Automation. Containers and software testing. System tests. Performance and load tests.

Teaching and assessment: Students attend lectures and practical exercises. Ongoing discipline control involves working on coursework assignments, which are evaluated. This evaluation influences the final evaluation. At the end of the course, each student must take an exam. At the exam, each student receives his or her own task from a known field and have several hours to fulfill the assignment. In order to be allowed to go to the final exam, each student must have been present of more than the half of the lectures, on all practical exercises and must have submitted his or her coursework. The student may have been absent from some of the exercises because of a reasonable cause, but he or she must be present on no less than 50% of all exercises. The course ends with an exam. Assessment is made on the basis of the student's work assessment during the semester (10%), the assessment obtained from the course work (10%) and the assessment obtained in the result of the passed exam (80%).

S01182 Data Bases**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel. 082 / 888 464, 888 326, E-mail: katya@ami.ru.acad.bg

Pr. Assist. Prof. Kamelia Ilieva Shoylekova, MEng, PhD, Dept. of Informatics and Information Technologies

tel. 082 / 888 214, E-mail: kshoylekova@ami.uni-ruse.bg

Pr. Assist. Prof. Katerina Georgieva Gabrovska-Evstatieva, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 470, E-mail: kgg@ami.uni-ruse.bg**Abstract:**

The purpose of this course is to familiarize students with the main principles of organising, creating and implementing of databases (DBs), database management systems (DBMS), and the information systems building. Students gain knowledge on important topics of database theory, the physical and logical organisation of DB, existing data models and the specificity of the models. The emphasis is on the relational database model.

Course content:

Main terminology in the DB theory, DBMS. Data models. Logical models. DB schema. Relational model. Relational DB schema. Relational algebra and relational calculus. Main operations with the data in the BD. Data manipulation languages. SQL. Queries. Interaction. Functional dependencies. Relational schema analysis. Normalisation and normal forms. DBMS. Operating principles. Transactions management. DB internal model. Physical organization and access methods.

Teaching and assessment:

The course comprises lectures, seminars, practice sessions and a course work. The lectures introduce important issues from DB organization, designing, building and application. During seminar classes students discuss problems related to DB theory and examine the practical applications. The practice sessions are intended to contribute to students' skills for designing individual DB and learn how to work in teams. The course assessment target is students' to build up skills for DB designing. During the term students do 2 tests including theory and problem solution cases. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course assessment, the tests and student's activity during the term.

S01184 Non-procedural Programming**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754; E-mail: datanasova@uni-ruse.bg

Pr. Assist. Prof. Sergey Dimitrov Antonov, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 475, E-mail: santonov@uni-ruse.bg**Abstract:**

The course objective is to familiarize students with two non-procedural styles of programming – logical and functional. Students study the fundamentals of programming and a concrete programming language, representing the relevant programming style (functional – e.g. LISP, SCHEME or ML and logic – e.g. PROLOG).

Course content: *Functional programming:* Main principles of Functional programming (FP), Constructions and techniques of FP languages, Data structures of FP languages, FP applications; *Logic programming:* Main principles of Logic programming (LP), Constructions and techniques of LP languages, LP applications, Comparative analysis of LP and FP. During the practice sessions students develop programs.

Teaching and assessment:

The course involves lectures, practice sessions and a course assessment. At lectures students learn the main principles of logic and functional programming, the syntax and semantics of programming languages, the techniques and style of relevant programming mode. Each student works on an individual task referring to compiling a program and its execution on a personal computer. Students use adequate programming languages (LISP, PROLOG, ML).

S01192 Algorithms Analysis and Design**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: gatanasova@uni-ruse.bgProf. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 464, E-mail: katya@ami.uni-ruse.bg**Abstract:**

The course main aim is studying methods for development of algorithms with practice-oriented application. Emphasis is placed on algorithm complexity. Students learn algorithm development techniques, such as recursion, mathematical induction. Algorithms are grouped in themes to facilitate the introduction of the adequate methods for their implementation. During the practice sessions students make programs for the algorithms introduced at the lectures using different methods, they compare and analyze the program specificity.

Course content:

Algorithm in general. Analysis and development. Algorithm complexity. Iteration and recursion. Mathematical induction. Greedy algorithms. Divide and conquer. Dynamic programming. Algorithms using linear data structures. Algorithms using sequences and sets. Graph algorithms. Computational Geometry. Geometric algorithms. Numerical algorithms. Combinatorial algorithms. Parallel algorithms.

Teaching and assessment:

During the semester students do three 3 tests including problems and theoretical material. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course work and the tests.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written**S00867 Component Oriented Programming****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 754; E-mail: datanasova@uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies,
tel. 082 / 888 326, E-mail: vvelikov@ami.uni-ruse.bg**Abstract:**

The course familiarizes students with the principles of contemporary Windows and Internet programming, focusing on the diversity of tools and adequate methods of application. Students study the ideology and significant details of Java programming language being a traditionally applied component-oriented language technology suitable both for training and for industry application. The incoming course links of the discipline are: Introduction to Programming, Object-oriented Programming (OOP), Data Structures and Programming. Outgoing course links: Artificial Intelligence, Multimedia Systems and Technologies, Internet Technologies, Programming for Internet.

Course content:

After a concise introduction to the fundamental resources and tools of Windows and Internet programming, follows a time-limited acquaintance with basic language aids and structures that proceeds with detailed studying an important part of Java package structure and classes for realizing some essential Java possibilities.

Teaching and assessment:

The course represents integrity of lectures and practice sessions. Students' assessment is based on the results from the exam practice work on PC (70%), two tasks that are fulfilled as homework (10%) and the individual practice work (20%) during the semester.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** practical

SB14901 Software Requirements and Specifications**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies, tel.: 082 / 888 754; E-mail: datanasova@uni-ruse.bg
Pr. Assist. Prof. Ekaterin Minev Minev, MEng, PhD, Department of Informatics and Information Technologies, tel. 082 / 888 311, E-mail: eminev@uni-ruse.bg**Abstract:**

The course presents the basic concepts and principles of designing software requirements, the tools, techniques and methods used for this purpose, as well as their description. The covered topics are related to the eliciting and collection of software requirements; definition of business, user, functional and non-functional requirements and their analysis, specification and validation; and software prototyping. Students also receive knowledge about management of the process for determining and specifying the software requirements and the role of the business analyst. For further understanding of the topics, the students are involved in a course project where it is expected to acquire some skills for application, interpretation, comparison, opposition, arrangement and systematization, derivation of causes, prediction of consequences, through independent work in groups. The encouragement to work in a team is a key point in the considered subject.

Course content:

Introduction to software requirements. Eliciting, collection and analysis of requirements, Role of business analyst and templates for documenting requirements, Specification and data analysis, Software prototyping, Agile approach to defining software requirements, Management practices in determining software requirements. Methods and control in case of changing requirements.

Teaching and assessment:

final grade for the subject is formed from a written exam in a test form and the grade from the coursework correspondingly.

S01122 Computer Graphics**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vasilev, MEng, PhD, Department of Informatics and Information Technologies, tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg
Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies, tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bg
Assist. Prof. Boyana Nedkova Ivanova, MEng, Department of Informatics and Information Technologies, tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bg

Abstract: The course has to familiarise the students with the basic principles of developing and working of interactive computer graphic systems and to give them the knowledge, which are necessary for development of program systems for geometrical modelling of objects and graphic documents, using computers. Main principles and approaches of visualization of 2-D and 3-D objects are discussed.

Course content: General information about computer graphics. Structure of interactive graphic systems. Peripheral devices for computer graphics. Architecture of up-date raster graphic displays. Basic graphic plain and 3-D space transformations. Matrix description. Composition of transformations. 3-D objects plain projections. Object description in graphic systems – models. Approximation and modeling of curves – interpolation, cubic splines, B-splines, Bezier curves. Organization of interactive work in computer graphic systems. Computer graphics colour, colours' models.

Teaching and assesment:

The course comprises lectures and practical classes. The main material is delivered at the lectures. At the workshops the students solve themselves problems from the theoretic material and develop programs using suitable program software (Borland C++, Delphi, Visual C++).

The final mark is composed from the mark of continuous students work through the semester (30%) and the exam result (70%).

SB14902 Mathematical optimization methods**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc (Math), PhD (Math), Department of Applied Mathematics and Statistics,

tel.: 082 /888 466, E-mail: vpavlov@uni-ruse.bg

Assoc. Prof. Ivan Radoslavov Georgiev, MSc (Math), PhD (Math), Dept. of Applied Mathematics and Statistics,

tel.: 082 /888 424, E-mail: igeorgiev@uni-ruse.bg**Abstract:**

The course's aim is to make students acquainted with some specific models ansmsg in solving management problems and up-to-date mathematical optimization methods for their solving, analyzing and interpretation of received solutions. The character of this course is markedly applied. All the discussed examples and problems have their economics applications near the practice. Demonstrations with usage of software packages for solving larger real models are provided.

Course content:

Efficiency and optimum criterion. General formulation of the linear programming problem (LPP). Working out linear programming models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the LSE solutions. Graphic method for solving LPP. Simplex Method. Duality in linear programming. The transportation problem. Goal programming. Integer programming. Network analysis, including PERT-CPM. Elements of queuing theory. Elements of inventory theory.

Teaching and assesment:

The teaching process is realized tthrough ictures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises.

Weekly classes: 2lec+0sem+0labs+0ps+1ca**Type of exam:** written**SB14903 Operations Research****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc (Math), PhD (Math), Department of Applied Mathematics and Statistics,

tel.: 082 /888 466, E-mail: vpavlov@uni-ruse.bg

Assoc. Prof. Ivan Radoslavov Georgiev, MSc (Math), PhD (Math), Dept. of Applied Mathematics and Statistics,

tel.: 082 /888 424, E-mail: igeorgiev@uni-ruse.bg**Abstract:**

The course's aim is to make students acquainted with some specific models ansmsg in solving management problems and up-to-date mathematical optimization methods for their solving, analyzing and interpretation of received solutions. The character of this course is markedly applied. All the discussed examples and problems have their economics applications near the practice. Demonstrations with usage of software packages for solving larger real models are provided.

Course content:

Efficiency and optimum criterion. General formulation of the linear programming problem (LPP). Working out linear programming models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the LSE solutions. Graphic method for solving LPP. Simplex Method. Duality in linear programming. The transportation problem. Goal programming. Integer programming. Network analysis, including PERT-CPM. Elements of queuing theory. Elements of inventory theory.

Teaching and assesment:

The teaching process is realized tthrough ictures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises.

Weekly classes: 2lec+1sem+0labs+0ps+ca**Type of exam:** written

S01186 Practicum Object Oriented Programing**ECTS credits:** 3**Assessment:** continuous assessment**Weekly classes:** 0lec+1sem+0labs+2ps**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bgAssist. Prof. Boyana Nedkova Ivanova, MEng, Department of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bg**Abstract:**

The course is a continuation of the disciplines "Introduction to Programming" and "Object Oriented Programming". Its purpose is to deepen the knowledge on topics, connected with the object-oriented approach in programming. Students will improve their programming skills and acquire habits for solving complex problems on their own by independently implementing C ++ programs, related to the use of classes, objects, and building object hierarchies,

Course content:

Classes, objects, inheritance. Object hierarchy design. Virtual functions and virtual classes. Polymorphism. Dynamic objects. Constructors and destructors. Operators. Operator overloading. Function and class templates. Creating libraries. Working with ready-made libraries.

Training technology:

Students attend practical exercises, during which they are given various tasks whose solution methods and peculiarities of realization are discussed. Then the students implement solutions of the tasks, with emphasis on setting up the programs, checking their operability and formal and logical control of the input data. The course ends with an overall assessment, formed on the basis of students' work during the semester and the conducted tests.

S01245 Workshop on Computer Networks and Communications**ECTS credits:** 3**Assessment:** continuous assessment**Weekly classes:** 0lec+0sem+0labs+2ps+1ca**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc.Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bgProf. Georgi Valentinov Hristov, MEng, PhD, Department of Telecommunications,
tel.: 082 / 888 663, E-mail: ghristov@uni-ruse.bg**Abstract:**

The course objective is students to get practical knowledge and skills in the field of local area networks (LAN) and wide area networks (WAN) – functioning, building methods, control and security. Lectures cover the reason for the complexity of routing algorithms - coordination between the different units in the network, overload of communication channels, etc. The lectures also include interior routing protocols (within Autonomous system) and exterior routing protocol (between Autonomous systems). In addition, a number of practical problems are discussed during the lectures. The lectures let the students know about different kind of method and techniques, which solve the above problems.

Course content:

Switching Process in IP networks. Virtual Local Area Networks. VLAN trunking protocol. Spanning Tree Protocol. Inter VLAN routing. Routing data and packet forwarding. Graph Theory. Dijkstra's algorithm – shortest path calculation. Bellman–Ford algorithm – shortest path calculation. Routing Table theory. Static and Dynamic routing. Interior Routing Protocols.

Teaching and assessment:

Practice sessions are conducted in computer labs under the supervision of an assistant professor/instructor. After discussing important course topics students implement individual tasks in practice. During the practice, students create simulated models of communication networks, which are then investigated.

SB14904 Web Design and Multimedia Technologies**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies.
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to get familiar with the main components of multimedia systems, the stages and models for developing e-learning resources, languages and environments for creating multimedia applications and Web-based applications.

Course content:

Introduction to Multimedia. Areas of application. Requirements, milestones and technology for creating multimedia applications; Essentials of multimedia and essential tools for creating and editing text, images, video and audio information; Authoring systems for creating multimedia applications and systems for developing and managing e-Learning courses; Animation - nature, types, purpose, elements, characteristics. Application of animation in training, multimedia and web design; Models and environments for creating e-learning resources; Web design with HTML5 - text, images, colors, lists, hyperlinks, tables, forms, validation; CSS3 styling - styling text, background, images, box model, positioning, additional styling techniques; Internet technologies, Bootstrap, Mobirise, WordPress; Website development. Planning, Navigation, Scripting, Content, Adding Multimedia Elements; SEO Website Optimization. Meta tags, posting.

Teaching and assessment:

Semester validation is given for more than 50 percent-attendance at lectures and lack of unreasonable absence from workshops. The number of reasonably missed classes must not be more than 70% of the total classes despite of the causes. The course ends with continuous assessment that is formed as 0.5 of the test-paper result, 0.1 of the workshop participation and 0.4 of the course assignment.

Weekly workload: 2lec+0sem+0lab+3ps+2cw**Type of exam:** written**S01215 Internet Technologies****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 754 / 32, E-mail: datanasova@ami.uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: mdimitrov@ami.uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 326; E-mail: val@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the resources, application field and approaches of modern programming languages for Internet. The focus is laid on the diversity of programming environments and tools, as well as on the established and continually innovated technological practices. Students get familiarized with the capacities and tools of Jakarta EE programming language for Internet. Another significant course objective is to provide students with primary knowledge and solid base for studying further the special Internet technologies fields. Incoming course links: Object-oriented programming and Component-oriented programming.

Course content: After brief introduction to the principle resources and tools of the Internet programming, students gain knowledge on a main part of Jakarta platform, used for programming of Internet applications.**Teaching and assessment:**

The practice sessions follow the theory taught at lectures. The course work consists of two parts and requires solving of a practice-oriented problem. The final grade is formed on the basis of the evaluation of week tasks, both parts of the course work and on the result from the exam including a written test and a theoretical question or practical task.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written

S01185 Probability and Statistics**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 606, E-mail: eveleva@uni-ruse.bgPr. Assist. Prof. Vesela Atanasova Mihova, Department of Applied Mathematics and Statistics,
tel.: 082 / 888 424, E-mail: vmicheva@uni-ruse.bg**Abstract:**

The course aims to teach students basic concepts and methods of probability theory and statistics for data analysis and processing. Examples close to the practice in the field of computer science are considered. The course includes lectures and practical exercises in a computer room. During the exercises students learn the specialized capabilities of MS Excel for statistical analysis.

Course content:

Basic concepts in Probability Theory. Axiomatic definition of probability. Random variables. Laws of distribution and numerical characteristics. Some common distributions. Systems of random variables. Law of Large Numbers. Central Limit Theorem. Introduction to Statistics. Point estimates. Confidence intervals. Statistical testing and hypothesis. Nonparametric hypotheses. Regression and correlation analysis.

Teaching and assessment:

Through the lectures students learn the basic theoretical formulations, the most important applications, the methods of solving practical problems. The planned exercises reinforce the lecture material and develop the technical skills of the students. The course assignments allow students to work independently on appropriate topics and examples. There are two two-hour control works on solving theoretical and practical tasks. The final mark is formed on the basis of the current control, the course assignment and the passed exam.

S01212 Artificial Intelligence**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 754; E-mail: datanasova@uni-ruse.bgPr. Assist. Prof. Sergey Dimitrov Antonov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 475 E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the possibilities, resources and application field for implementation of Artificial intelligence. Some main sections are studied: Heuristic search algorithms, Expert systems, Knowledge representation, Neural networks, Fuzzy sets, Genetic algorithms, Machine Learning. Aiming to ensure basic knowledge, both in theoretical and practical parts. Incoming course links: Object-oriented programming, Non-procedural programming, Data structures and programming and Algorithm Development and Analysis.

Course content:

Fundamentals, means and models of the Artificial intelligence. Solving problems, Search strategies, Heuristics search algorithms, Knowledge representation, Expert systems, Neural networks, Fuzzy sets, Genetic algorithms and application, Machine Learning.

Teaching and assessment:

The practice sessions follow the theory taught at lectures. The course task is an extract from a complex practice-oriented problem. The final grade is formed on the basis of the course task evaluation, but mainly on the result from the exam that is a written test.

S01198 Database Workshop**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Katerina Georgieva Gabrovska-Evstatieva, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: kgg@ami.uni-ruse.bg**Abstract:**

The course is studied in the 3rd year of specialty Software Engineering. The workshop focuses on generating skills necessary to analyze, design, create and make use of databases. It is related to the theoretical course in databases and extends the practical skills for designing and developing relational databases. Team working and self-evaluation are encouraged during the workshop activities.

After completing the course students know how to design and develop a database in a concrete DBMS. The knowledge gained is helpful for preparing the diploma thesis and for future scientific work.

Course content:

DBMS – general information. Creating empty data base. Working with tables. Data types. Specifying field characteristics. Fields definition. Creating relationships among tables. Data sorting and filtering. Data manipulation. Queries. Type of queries. Query properties. Forms. Form properties. Data insertion, edition and deletion through forms. Reports. Report properties. Report fields properties. Data base protection. Menus. Main form of the system.

Teaching and assessment:

The course consists of 2-hours workshop sessions per week and writing a course work. For the workshop sessions the students are grouped in teams and work in a specific DBMS on the assignment that is allotted as sub-tasks of the required essay. The completed tasks are reported to the lecturer in due time. The final grade of the continuous assessment is based on the course work mark and student's activities during the semester.

S01199 Workshop on Data Structures and Programming**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Galina Evgenieva Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: gatanasova@ami.uni-ruse.bg**Abstract:**

The course is intended for students from the 3rd year of study. Its main objective is to build up skills for using complex data structures in solving concrete practical problems. This workshop follows the course of the same name and gives students an opportunity to practice team work. Special attention is paid on the realization of definite algorithms applying different methods and using various data structures. The comparison of different solutions is used for finding the most proper method and structure applicable for a given problem.

Course content:

Stack and queue representation. Applications. Linear list representation. Binary trees. Traversals. Application. Graphs. Representation. Traversals. Shortest paths. Development of methods and program implementation of a comparatively complex problem.

Teaching and assessment:

The course includes workshops and a written paper. Workshops are held 2 hours weekly. During the first half of the term students' teams solve simple problems on concrete themes. The second half is focused on solving a complex problem requiring to make a choice for using a definite data structure, development of methods for solving the problem and its program implementation. The course ends with a continuous assessment formed on the basis of student's results during the term.

SB16317 Fundamentals of Management**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Business Development and Innovations
Faculty of Business and Management**Lecture:**Assoc. Prof. Emil Nikolov Kotsev, MA, PhD, Department of Business Development and Innovations,
tel: 082 / 888 617, E-mail: ekotsev@uni-ruse.bg**Abstract:**

The course aims to provide students with some basic managerial skills and expertise. The teaching material is designed in accordance with the students' aspirations of getting theoretical knowledge practical training in the field of management of organizations from the sector of software engineering. Theories and methods for planning, organizing, leading, and management control are introduced in the course. Students are introduced to the peculiarities of making management decisions, managing change in the organization and managing conflicts that have arisen. Students acquire practical approach to decision making. They analyze and review practical examples, case studies and conduct managerial role games in order to develop practical skills for their future career. Knowledge gained has input connection to "Cyber security and data protection", Economics of Software Engineering".

Course content:

The course includes the following main topics: Management context; Organization, management, manager; Development of Management – theory and practice; Management functions - planning, organizing, leading and management control; Management decision; Change management and conflict in the organization.

Teaching and Assessment:

In the teaching course besides the classical lecture methods it is planned to use also modern digital tools. The bigger part of the taught material is being illustrated by appropriate examples from practice. This assists the efforts for implementing more purposeful seminars. The seminars are synchronized with the lectures. Students are expected to do their lecture readings beforehand, so that they will be able to participate in class discussions more adequately. The assistant professor carries out a continuous assessment and gives an average evaluation for the term, based on the overall student's participation in the discussions, in the debates on causes and on the prepared essays. Along with the examination of the level of acquired professional knowledge on Management, the skills for applying them in practical situations are also being viewed. The overall evaluation is built on the base of the participation assessment during the term and the exam grade.

SB14905 Communication skills**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Management and Social Work
Faculty of Business and Management**Lecturers:**Pr. Assist. Prof. Nataliya Trofilova Venelinova, MA, PhD, Dept. of Department of Management and Social Work,
tel. 082 / 888 810, E-mail: nvenelinova@uni-ruse.bg**Abstract:**

The course objective is to give basic knowledge about the nature of communication, types of communication, basic communication skills, to examine in depth the characteristics of the communication act and its specifics depending on the nature of communication - interpersonal, group, intergroup, mass. The course should build knowledge and understanding of the communication processes, roles and functions of the participants, to bring the features of communication practices to interpret them in the light of communications in specific areas such as national, Euro-Atlantic and global security.

Course content:

The topics are divided into three main modules - Introduction and general theory of communications; Key communication skills; Module 3: Analytical communication skills

Teaching and assessment:

The seminars follow the lecture material. The course task aims to analyse a given type of communication situation; to plan, describe and argue an adequate communicative reaction. The assessment of the course is formed by the exam result, the course assignment and the student's work during the seminars.

14906 Human-Computer Interaction Design**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 255, E-mail: datanasova@ami.uni-ruse.bgAssoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The main objective is to familiarize students with the main principles, approaches and techniques for designing and developing human-computer interactions (HCI). The stress is placed on the project building and the testing methods of prototype development and evaluation, as well as on the psychological aspects of the HCI. Students are involved in discussions about the effects of human factors on interface designs and development of applied software; methods and techniques for user-centered and analysis-based structural design of interaction; HCI evaluation.

Course content: Introduction to HCI. HCI components. The human aspects of HCI. Cognitive models for HCI. Visual perception and representation. Concentration and mental models. Interface metaphors and conceptual models. User interface design aspects. Principles and models of user-centered design. Structural design frame. Design supports. Principles and rules. Instructions, standards and metrics. Design costs evaluation. Evaluation role. Data accumulation – methods and techniques. Experiments and standardization. Expert assessments.

Teaching and assessment: The course includes problem-oriented themes which are put forward for discussion. Practice session accent is place on the individual student's work. Students deal with solving problems related to designing and creating of HCI. Each student individually develops software user's interface of a software system as a course assignment. The course ends with an exam.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written**SB14907 Cloud Computing****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 754, E-mail: rir@uni-ruse.bgPr. Assist. Prof. Magdalena Hristova Andreeva, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: mhandreeva@uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: mdimitrov@uni-ruse.bg**Abstract:**

The course aims to give students the knowledge and skills in the field of Cloud Computing. The fundamental principles and paradigms are discussed. As a result, the students will be able to use the common cloud services, to deploy applications and to use cloud resources. The knowledge and skills acquired in the study of Cloud Computing course are useful for future implementation in the software industry. The course uses initial knowledges from Internet Technologies, Computer Network and Communications, and other basic courses.

Course content:

Introduction to the Cloud computing. Deployment models – Public, Private, Community, Hybrid Cloud; Microsoft Azure architecture – data centers, regions, zones of availability. Resources, resource groups, resource management. Virtualization. IaaS – virtual machines; PaaS - App Service. Azure Storage Service – Blob, Queue, Table, Files, Disk and storage tiers; Database services - QL Database, Db for MySQL & PostgreSQL; Cloud security – network and application security. Azure Firewall; Azure security center. Service lifecycle. Service-level agreement, cost management. Good practices. IaaS, PaaS, SaaS best providers.

Teaching and assessment:

The lectures explain the fundamental principles, models and resources of the cloud computing. The students should be able to work alone and apply the knowledge during the workshops, which are held in computer labs. The course ends with an ongoing assessment.

SB14908 Software Verification and Validation

ECTS credits: 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 255, E-mail: datanasova@ami.uni-ruse.bgAssist. Prof. Boyana Nedkova Ivanova, MEng, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bg**Abstract:**

The course aims to help students master the modern requirements for verification and validation of software. As a result of the course, students will be able to select and use the right software tools at different stages of verification and validation of software products and apply them in their future work.

Course content:

Software verification and validation - general concepts. Importance for software quality assurance (SQA - Software Quality Assurance), Software testing strategies. Code verification, Software metrics, Software testing techniques. Software Specification Testing, Black Box Testing, White Box Testing - Flow Testing, White Box Testing - Data Testing, Website Testing, Applicability Testing, Website Validation, Genetic Validation Algorithms of software, Document testing, Security tests, Load testing.

Teaching and assessment:

The training in the discipline includes lectures, practical exercises and a course assignment. Lectures discuss the basic strategies, methods and theoretical foundations of software verification and validation.

The practical exercises are conducted in subgroups in halls with personal computers. Students receive in advance the topic of the assignment for work during the exercise. At the beginning of the exercise the students' preparation for the lesson is checked. Then each student completes an individual or team assignment. Appropriate software tools are used, depending on the topic of the exercise.

The course assignment is developed in teams by students. There are certain hours for assignment consultations

Weekly classes: 3lec+0sem+0labs+2ps+1ca**Type of exam:** written

SB14909 Internet Technologies Workshop

ECTS credits: 3**Assessment:** ca**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 255, E-mail: datanasova@ami.uni-ruse.bgAssist. Prof. Boyana Nedkova Ivanova, MEng, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: mdimitrov@uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326; E-mail: val@ami.uni-ruse.bg**Abstract:**

The workshop supports the discipline of Internet technologies, and its purpose is related to the consolidation of knowledge in various Jakarta EE technologies. During the course, students deepen their knowledge in Servlet technology, RESTful web services, JSF, JPA, CDI, WebSockets and MVC.

In the exercises attention is paid to the independent practical work of the students on the development of specific software tasks.

The input links of the course are from: "Internet technologies" and "OOP".

Course content:

Servlet, RESTful web services, Jakarta Enterprise Beans, Jakarta Server Faces, Jakarta Persistence, Web sockets, Jakarta MVC.

Teaching and assessment: The practice sessions follow the theory taught at lectures. The course work consists of two parts and requires solving of a practice-oriented problem. The final grade is formed on the basis of the evaluation of both parts of the course work, but mainly depends on the result from the exam including a written test and a theoretical question or practical task.

SB14910 Practicum on Computer Graphics**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc.Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bgPr. Assist.. Prof. Sergey Dimitrov Antonov, MEng, PhD, Dept. of Informatics and Information Technologies, tel.:
082 / 888 475; E-mail: santonov@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain practical skills on the theoretical knowledge introduced by the course "Computer Graphics". Students learn the operating principles of widespread software products for computer graphics and obtain practical skills for using these products. The focus is also laid on the main methods for graphical data exchange from different software products, as well as on the way of working both with vector and raster images.

Course content:

Destination and basic capacities of modern software products for computer graphics. Operating with texts in graphical systems. Basic graphical primitives, parameters, geometric transformations. Operating with curves – free-hand-drawing and Bezier curves. Organization of working with layers, possibilities, basic parameters of layers. Operating with raster images in systems for vector graphics. Obtaining raster images. TWAIN interface. Processing of raster images. Raster file formats. Practical aspects for choosing file format and compression coefficient; image quality.

Teaching and assessment:

The course is conducted through practice sessions. Students are involved in discussions regarding theoretical and practical aspects of the topic. The lessons are held in computer labs for practical application of theoretical knowledge that is commented in advance. The individual course assignment is a complex task requiring the usage of computer graphics products.

SB14911 Web Server Applications**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bgPr. Assist. Prof. Metodi Lyubchev Dimitrov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: mdimitrov@uni-ruse.bg**Abstract:**

The goal of the course is to introduce students to the functionality and principles of building modern web applications, consisting of a client module, created using the JavaScript programming language, and a server module, containing the business logic of the application, created based on microservices. Before the beginning of the course, students should be familiar with the topics covered in the following courses: "OOP", "Internet technologies" and "Web design and multimedia technologies".

Course content:

Basic concepts of SPA applications. Specifics of the syntax of SPA applications. Working with components. Event handling. Updating the status of the components. Navigation and SPA applications. Working with RESTful Web Services. Introducing the microservices. Creating microservices. Communication between microservices and databases. Communication between individual microservices. Some software templates, used in microservices.

Teaching and assessment:

The course teaching is organized using lectures, practical exercises, course work. The continuous assessment is based on computer-based tests at the beginning of each exercise (take up to 15 minutes); the course work; two control works (on theoretical questions and tasks) according to a schedule. The results of the computer tests, the control works and the course work are evaluated by a point system and at the end of the semester, and they form the final course assessment.

SB14912 Cybersecurity and Data Protection**ECTS credits:** 6**Weekly classes:** 0lec+0sem+0labs+2ps+1ca**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc.Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 470, E-mail: rir@ami.uni-ruse.bg
Assist. Prof. Boyana Nedkova Ivanova, MEng, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: bivanova@ami.uni-ruse.bg**Abstract:**

This course addresses the main aspects of cybersecurity, policies and approaches to protect information systems and prevent unauthorized access and data loss. The main approaches in cryptography and their application in data protection and ensuring their integrity, certification of rights to access information resources and improving security in computer networks are considered.

Course content:

General principles of cyber security - computer security, information security, data security. Security and control standards, certification. Risk management in information security - types of threats, strategies, risk assessment. The human factor in computer security. Training, certification and auditing. Network security. General principles in cryptography as an element for ensuring data security. Classical cryptographic methods. Symmetric cryptosystems. Standards for symmetric encryption. Asymmetric cryptosystems. Standards for asymmetric encryption. Electronic signature, qualified electronic signature, certification service providers. Security in Web - based systems. Secure VPNs.

Teaching and assessment:

The teaching is organized in: lectures, workshops, course assignment. The lectures explain the theoretical fundamentals of the material and give suitable examples. The students should be able to work alone and develop simple applications during the workshops, which are held in computer labs. The course ends with an ongoing assessment. It is formed by current control (TC) from the assessments from the control works (CW1 and CW2), the assessment of the course task (CW) and the assessment from work during the practical exercises (PE): $TC = 0.7 (CW1 + CW2 + CW) + 0,3PE$

SB16332 Management of Software Projects**ECTS credits:** 5**Weekly classes:** 3lec+3sem+0labs+0ps**Assessment:** exam**Type of exam:****Department involved:**Department of Business Development and Innovation
Faculty of Business and Management**Lecturers:**Assoc. Prof. Anton Nedyalkov Nedyalkov, Department of Business Development and Innovation,
tel.: 082 / 888 520, E-mail: anedyalkov@uni-ruse.bg
Assoc. Prof. Daniela Nikolova Yordanova, Department of Business Development and Innovation,
tel.: 082 / 888 520, E-mail: dyordanova@uni-ruse.bg

Abstract: The aim of the course is for students to gain knowledge and develop skills and competencies for the process of planning, managing and monitoring software projects under constraints of execution time, scope, quality and financial resources.

Course content:

What is a project? What is project management? Project life cycle and organization. Project management processes. Project launch and initiation. Detailed project planning (task work structure, time planning, resources and budget). Types of software processes – Waterfall, Rational Unified Process, Agile processes, Extreme Programming. Project execution management (leadership, team supervision, product development management, supply management). Evaluation of software projects. Monitoring, control and reporting of progress. Risk Management. Project management software systems.

Teaching and assessment:

Problem lectures are held on the discipline. Students should familiarize themselves with the prepared materials on the topic in advance. During the lectures, there is a discussion on the main points of the topic. The seminar exercises aim to deepen the knowledge gained from lectures and self-study. The following interactive methods are used: presentation, talk, discussion, independent work in small groups. Teaching aids are: multimedia, interactive board, computers. On-going control is conducted in the form of a talk, face-to-face questions, case studies, situational tasks, independent work in small groups, demonstration of acquired practical skills and habits. The theoretical exam grade is the arithmetic average of the two questions asked. If a "Poor (2)" grade is obtained for one of them, the exam ends with a low pass.

S00907 Programming Mobile Devices**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The course aims at giving the students knowledge and skills about types of mobile devices and their programming. Two programming approaches are addressed: Java/Android/Android Studio and in the Microsoft Visual Studio environment. The course steps on basic knowledge in maths, English, programming and depends on: Component oriented programming, Programming for Internet and Internet technologies. The acquired knowledge will be used in the diploma project and future practice of the graduates.

Course content:

Introduction. Types of mobile devices. Programming in Java/Android. Developing a simple application. User interface: Layouts, widgets, dialogs, menus. Views, activities, services and intents, broadcast receivers, content providers. Phone hardware using. Graphics, animations and multimedia. File system, flash memory. Threads and timers. Network programming. DataBases. OS Windows 10 and mobile possibilities. WPSilverlight and UWP.

Teaching and assessment:

The teaching is organised in lectures and practice sessions. The lectures explain the theoretical foundations of the material and give suitable examples. The students should be able to work alone and develop simple applications during the practice sessions, which are in computer labs. The course finishes with a continuous assessment grade. It is computed as a weighted sum of two control tasks (0.4) and the practice work (0.2).

S00906 Geographical Information Systems**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Georgi Nikolov Krastev, MEng, PhD, Department of Computing
tel.: 082 / 888 672, E-mail: gkrastev@ecs.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge about geographical information systems, their basic applications and components. The course provides students with the possibility to experience operating with concrete software products and lays the foundations for professional growth in such a dynamically developing field.

Course content:

History of GIS, basic terminology, functionality, components and applications. Data base with geographically referenced information. Meta data. Main functions. Basic data formats. Operation with geographically refined data. Basic cartography principles. Creating maps. Layers and symbols, classification methods and styles. Labels and annotation. Geo-coding. GIS data base design. Main resources of geographically referenced data and methods of application. Validation of geographically referenced data. Data analysis in 3D. Cartographic algebra. Raster data base. Topographic analysis. Distances. Visualization techniques. Image processing. Perspectives of GIS design.

Teaching and assessment:

Lectures are 2 hours weekly. Practice sessions are 3-hours weekly. Each student gets a course work that has to be worked out as homework. Course works are defended and evaluated in the end of the course. Students do two test papers on theory and practice-oriented problems. The course ends with a continuous assessment mark. The final grade is formed as a sum of 0,7 of the test paper results, 0,1 of student's activities mark and 0,2 of course assessment mark.

6079 Visual programming**ECTS credits:** 4**Assessment:** continuous assessment

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:Asoc. Prof. Desislava Tsoneva Baeva, MEng, PhD, Department of Informatics and Information Technologies, tel.: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Annotation:**

This course acquaints students with the possibilities, principles and approaches of modern programming, paying attention to established and constantly updated technological practices. It aims to provide students with complete code-based training for secure code writing in the Microsoft .NET environment, giving them the most general guidance on security in project development.

It focuses mainly on the C # language, the .NET Framework and ADO.NET and WPF technologies. The discipline's inputs are: Visual programming MS Office, CMO. The knowledge and skills gained in the discipline of Visual Programming are the basis for the development of course assignments, works and projects and can be successfully used in the graduate design and future work of the specialty.

Course content:

.NET Framework architecture. Introduction to C #. Validation and exception handling. Streams. Stream Flow Architecture .Net. Assistant classes. Graphical user interface with Windows Forms. ADO. NET and working with databases. XML schemas and XML Designer. Determining the life cycle of objects and controlling resources. Security in the .NET Framework.

Teaching and assessment:

During the practical exercises, the knowledge gained in lectures is strengthened, paying attention to typical logical and program constructions. Student knowledge is periodically checked during practical classes through tests and interviews. In the second half of the semester three computer tests are carried out during the practical sessions.

S00908 Computational Linguistics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:Asoc. Prof. Desislava Tsoneva Baeva, MEng, PhD, Department of Informatics and Information Technologies, tel.: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course aims to provide students with the basic theoretical knowledge behind the development of software systems with embedded linguistic processors, to build competencies for basic software for the basic principles of computer processing of texts, written in formal and natural languages acquainted with intelligent natural language interfaces for various purposes

Course content:

The formal grammar section deals with formal grammars, Chomsky's classification, context-free languages, grammars and recognizers, as well as linear languages, grammars and recognizers. The Translators section deals with the main stages of translating formal computer programs, their internal machine representation, and compiler building techniques. The Linguistic Processors (LP) section discusses the general structure of LPs, the principles of operation, and the modules of LPs.

Teaching and assessment:

The lectures deal with basic theoretical issues related to formal languages and grammars, translators and linguistic processors. Each group of lecture topics concludes with a summary of the material considered and the formulation of problematic questions.

Practical exercises discuss and analyze all the basic techniques for implementing the theoretical concepts introduced. Each practical exercise begins with an overview of the specific type of task and an analysis of the advantages and disadvantages of the tasks used to accomplish these tasks.

Mastering a course in Computational Linguistics involves the use of both traditional and innovative educational technologies. Traditional educational technologies include the use of such methods of work in the educational process as lectures, seminars, practical lessons and more. Innovative educational technologies determine the introduction of various forms of training such as business games, discussions, situation modeling and more.

SB14914 Social and Legal aspects of Software Engineering**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Tsoneva Baeva, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course is included as an elective in the eighth semester for the specialty "Software Engineering". Within two modules, the course explores a wide range of practical and theoretical issues related to the development and use of computer technology in practice, in search of adequate technological, ethical, legal, socio-economic and socio-cognitive frameworks, guidelines and technological solutions. The aim of the course is to provide a comprehensive overview of the problems, while focusing on specific practical problems through the prism of different scenarios.

Course content:

I. Digital Society; Digital rights; privacy and data protection; Information management; Copyright in the electronic space.

II. Areas of influence of IT: e-government, e-justice, security, intelligent transport systems; Internet as a research tool.

Teaching and assessment:

The lectures are two hours long and are held once a week. During the lectures there is a discussion on the main points of the topic. The seminars mainly include students' independent work and consideration of specific cases

The course ends with an ongoing assessment, which is formed on the basis of pre-set criteria for students' work during seminars and online testing.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written**SB14915 Economics of Software Engineering****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Economics and International Relations
Faculty of Business and Management**Lecturers:**Assoc. Prof. Aleksandar Angelov Kosuliev, MA, PhD, Department of Economics and International Relations,
tel.: 082 / 888 557, E-mail: akosuliev@uni-ruse.bgPr. Assist. Prof. Elizar Aleksiev Stanev, MA, PhD, Department of Economics and International Relations,
tel.: 082 / 888 703, E-mail: eastanev@uni-ruse.bg**Abstract:**

The goal of the course is for students to familiarize themselves with the basic economic principles and learn of ways to apply them when facing economic challenges in software development and sales of software products. The course opens with fundamental market principles, competition structures and profit maximization through marginal analysis, then focuses on exploring the application of various economic instruments in the realm of software engineering.

Course contents:

markets, supply and demand, price equilibrium, production and profit maximization, competition and market structure, capital and labor markets, public sector, externalities, standardization, economic specifics in open-source software, instruments for economic analysis

Teaching and assessment:

The curriculum follows the usual split between lectures and seminars in equal proportions. Students familiarize themselves with the basic theory and methods during lectures, while the seminars focus on the practical application of the instruments, including through interactive team assignments (cases, quizzes, etc.). The final grade is formed by a mid-term and exit tests, plus a bonus for participation during the semester in a 80-20 proportion.

SB15916 Parallel Programming**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg**Abstract:**

The course familiarises the students with the theory, technologies and architectures of parallel information processing systems. Hardware solutions of HPC systems are addressed as well as technologies for parallel programming. At the workshops the students work independently on developing specific software tasks.

Course content:

Introduction. Parallel computing and parallel computers. Flynn's taxonomy. Terminology. Memory architecture of parallel computers. Parallel programming – levels of parallelism, models. Developing parallel software. Parallel programming model with shared memory. OpenMP – Aim, history, components: compiler directives, library, environment variables. OpenMP compiler directives. OpenMP library functions and environment variables. Parallel algorithms – principles, design. Parallel algorithms for one dimensional array processing, reduction. Parallel algorithms for multiplication of a matrix and a vector, for solving linear systems of equations, for sorting and searching. Parallel programming model of the type message passing, MPI. Using the graphics processor (GPU) for parallel programming.

Teaching and assessment:

The students attend lectures and practical exercises (workshops). The workshops are conducted in sub-groups in computer labs with suitable software installed. The students solve problems independently connected with the material taught at the lectures. The solutions are implemented in a suitable IDE, like Visual Studio. The final grade is formed as an average of two tests during the semester.

SB14917 Software Design Patterns**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 645, E-mail: stsankov@uni-ruse.bgAssist. Prof. Sergey Dimitrov Antonov, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 768, e-mail: santonov@uni-ruse.bg**Abstract:**

Course on Software Design Templates develops, deepens and summarizes the knowledge needed to solve common problems in object-oriented programming. Software design templates are independent of the programming language - they offer standard solutions for architectural and conceptual problems in computer programming. This concept includes not only different algorithms, but mostly approaches and architectural solutions for combining them with specific problems. Upon successful completion of the course, students should know: the main features of the more commonly used templates, when they are used and in what situations, how they can be modified, practically implement them, and work on projects built on certain templates.

Course content: Basic principles of software templates for design, structure, categories. Brief description of UML language. Creation Patterns. Abstract Factory, Factory method, Builder, Singleton. Structural Patterns. Adapter, Bridge, Composite, Decorator / Wrapper, Facade, Flyweight, Proxy. Behavioral Patterns. Chain of Responsibility, Command, Interpreter, Iterator, Mediator, Observer, State, Strategy, Template method, Visitor (Visitor). Architectural Patterns. Model-View-Controller (Model-View-Controller or MVC).

Teaching and assessment: The course is taught in the following forms: lectures (lecture combined with talk and lecture with elements of interactive and multimedia training, observation, demonstration, etc.); practical exercises (discussion, talk, individual work, work in pairs, group work, case study, tests, etc.); consultations; self-employment (work in a computer lab). Students receive a semester certification when attending lessons of not less than 70% of the hours of audience hours provided for in this program. At the end of the semester the theoretical knowledge of the students is checked by a test on the whole material. The final mark is determined by the scores of the primary test (50%) and the current assessment (50%).

SB14918 Big Data Processing**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies,
tel.: 082 / 888 326; E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The course aims to give students a basic understanding of working with large data sets. The course is aimed at learning about and using the basic strategies for manipulating large amounts of data and the prospects for their application in various marketing studies. As a result of the course, students will be able to apply components of the Hadoop ecosystem.

Course content: The concept of "big data" – definition and taxonomy; historical development; elements; advantages and disadvantages of using them. Fundamentals of technologies for working with large data sets. Model "3Vs". Hadoop and its ecosystem: HDFS, MapReduce, Pig, YARN, Hive, HBase, Sqoop, Zookeeper, Flume, Oozie and others. Data processing using MapReduce. Testing and debugging applications using MapReduce. Introduction to Hive and HIVEQL. Use Hive to search for Hadoop files. Big Data & Machine learning. Machine learning tools – Spark & SparkML, H2O, Azure ML.

Teaching and assessment: The lectures are three hours long and are held once a week. Problematic lectures are held on the course and a discussion is held on the main points of the topic. The practical exercises focus mainly on the independent work of the students. Tasks related to the construction and processing of large volumes of data are solved. The continuous assessment includes the marks from two tests. The final grade is formed on the basis of tests results and the assessment of the practice sessions work.

S01553 State Exam**ECTS credits:** 10**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

All lecturers at the Department of Informatics and Information Technologies

Abstract: The State Exam takes place before a State Examination Commission upon a preliminary approved syllabus which includes questions from the areas of: Informatics, Information Technology.

Course content: The written state exam covers all major topics studied during the period of education and training in the areas: Informatics, Information Technology.

Teaching and assessment: The students develop the topics from the studied areas and present them before the State Examination Commission.

S00083 Bachelor Thesis**ECTS credits:** 10**Assessment:** exam**Departments involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Informatics and Information Technologies

Abstract: The thesis is an independent creative task, which is carried out under the guidance of a scientific supervisor, and if necessary - also of a scientific (external) consultant. Its purpose is for students to demonstrate the knowledge and skills they have acquired during the course of study to achieve the goals and objectives of the thesis and to defend their work before an examination committee. Students with an overall GPA (up to 7 semesters inclusive) above 4.50 are allowed to develop a Diploma Project.

Course content: The Bachelor thesis is presented and defended before the State Examination Commission.

Teaching and assessment:

The Profiling Department "Informatics and Information Technologies" carries out: the organization of collection, approval and announcement of proposals for thesis topics; the distribution of students by topics and supervisors; conducting the pre-diploma practice; the guidance, review and defense of theses. A weekly consultation with the supervisor is planned for the students, during which the implementation of the assigned task is monitored. The graduate defends his thesis before the State Examination Commission.

**UNDERGRADUATE
STUDIES
IN
FINANCIAL MATHEMATICS**

**PROFESSIONAL STANDARDS
OF A BACHELOR IN FINANCIAL MATHEMATICS**

Degree Programme: **Financial Mathematics**
Educational Degree: **Bachelor**
Professional Qualification: **Mathematician-Financier**
Term of education: **4 years (8 terms)**

The **main purpose** of the education and training in this undergraduate programme is to prepare highly qualified specialists in the area of financial mathematics. This is a new and modern field for the countries from the European Union. It finds applications in all bank, insurance and financial institutions, budget organizations and companies which are operating with large capacity of financial assets. The need for such specialists is related to the development of financial models, risk control and the making of complicated mathematical and financial computations. Apart from that the information environment requires from the financial mathematicians excellent knowledge in mathematics, finance, ICT and foreign languages.

GENERAL AND SPECIFIC TRAINING

The students in the undergraduate programme in Financial Mathematics receive:

- **Basic knowledge in the area of mathematics, statistics, informatics, economics, finance and law** – differential and integral computation, linear algebra, differential equations, probability theory, numerical methods, applied statistics, programming, data bases, general economic, financial operations, theories of economic growth.
- **Domain specific knowledge in the area of the applications of mathematics and statistics in economics or finance** - interest, discount and annuity calculations, financial calculations in operations with investment securities operations research in economics, econometrics, modeling in finance, stochastic analysis and applications, insurance mathematics, methods of Monte Carlo in finance, calculus of variations with applications in economy neural network, patterns of mortality probability models, time series analysis of risk, credit risk;
- **Domain specific knowledge in finance** – financial management, financial markets, market research, insurance, portfolio management, analysis of financial ratios, financial engineering, business simulations and optimizations, computer accounting, tax policy;
- **Domain specific knowledge in computer science** – visual programming in EXCEL, computer graphics, Internet technologies, multimedia systems and technologies, information systems, WEB design;
- **Basic knowledge of English and knowledge of English for specific purposes** – fluent in English, including specific terminology in the fields of mathematics, finance, insurance and the economy;
- **Creative knowledge** – word processing with Latex, actively used worldwide for the treatment of mathematical and scientific texts.

GENERAL AND DOMAIN SPECIFIC SKILLS AND COMPETENCES

The graduates acquire general skills in mathematics, statistics, economics, finance, computer science, free use of English. These are strategic thinkers who not only know how to handle numbers, but also understand what actually stands behind each received number. Thanks to these skills they can create effective solutions to problems which are expected to be generated from future random events in the business. These are professionals who are responsible for building the basics of insurance and financial products, health insurance and pension schemes. They are the people that determine the pricing of insurance policies, as well as assessment and risk management and planning of required reserves that companies must set aside to meet future obligations. Their special skills associated with performing complex financial and mathematical calculations; compiling, analyzing and solving mathematical and statistical models in finance; analysis and risk management; programming and work with specialized software; specialized knowledge of English.

CAREER PROSPECTS

The graduates can work in different banking, insurance, financial institutions and budgetary organizations and in all sectors of economy and business.

They can work as actuaries, specialists in risk management or specialists in making banking, financial or insurance products. The requirements to their training and competences are high and are consistent with the excellent prospects for career development.

FURTHER EDUCATION PROSPECTS

The students graduating the undergraduate programme in Financial Mathematics can successfully continue their education in all master programmes in the areas of mathematics, economics and finance. The specialized foreign language training gives them ample opportunity to do so abroad.

CURRICULUM
OF THE DEGREE COURSE IN FINANCIAL MATHEMATICS

First year

Code	First term	ECTS	Code	Second term	ECTS
S00700	Introduction to Economics	6	S02371	Insurance	6
S00701	Calculus, Part I	6	S00870	Calculus, Part II	7
S00769	Linear Algebra and Geometry	7	SB15476	Discrete Mathematics	6
S00770	VBA Programming	6	S01094	Probability Theory	6
SB13824	English in Financial Mathematics 1	5	S00771	English in Financial Mathematics 2	5
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
S01223	Ordinary Differential Equations	7	S01463	Finance	5
S01448	Statistics	6	S01548	Partial Differential Equations	5
S01451	Visual Programming in EXCEL	6	SB15292	Numerical Methods	6
SB13824	English in Financial Mathematics 3	5	S01550	Econometrics	5
SB15051	Computational Mathematics	6	SB15445	Programming with Python	5
			SB10203	English in Financial Mathematics 4	4
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
S02374	Stochastics Analysis and Applications	5	S02378	Insurance Mathematics	7
S02373	Introduction to Financial Mathematics	7	S02379	Monte Carlo Methods in Finance	6
S00876	Operations Research in Economics	7	SB15167	Modelling in Finances	6
SB15296	Neural Networks in Finances	6			
	Elective courses (students choose one course)		Elective courses (students choose one course)		
S02375	Typesetting with LaTeX	5	S02381	Web Design	5
S02376	Computer Graphics	5	S02382	Multimedia Systems and Technologies	5
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
S02384	Risk Analysis	6	S00853	Business Economics	3
SB14352	Financial Engineering	6	SB14354	Financial Law	2
SB14353	Computational Finance	6	SB14355	Methodology of Scientific Research	1
			SB14356	Language and Style	1
			S02418	Practicum in Financial Mathematics	3
			S02434	Graduation Self-study	4
Elective courses (students choose one course)			Elective courses (students choose one course of each group)		
S02389	Internet Technologies	6	SB15444	Markov Processes	3
S02390	Information Systems	6	S02397	Credit Risk	3
S02438	Business Simulations and Optimization	6	SB15446	Modelling of Financial Markets	3
Elective courses (students choose one course)			Elective courses (students choose one course)		
SB15052	Mathematical Economics	6	S02435	Theories of Economic Growth	3
SB15053	Game Theory	6	S02387	Theory and Management of Investment Portfolios	3
			Graduation		
			S02439	State Exam	10
	Total for the term:	30		Total for the term:	30
S00072	Sports	1	S00072	Sports	1

Total for the course of study: 240 ECTS credits

S00700 Introduction to Economics**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Economics

Faculty of Business and management

Lecturers:

Assoc. Prof. Emil Georgiev Trifonov, MEcon, PhD, Department of Economics

tel: / 888 703, E-mail: etrifonov@uni-ruse.bg**Weekly workload:** 2lec +2sem+0labs+0ps+se**Type of exam:** written and oral**Abstract:**

The Economics course is a fundamental economic discipline, dealing with common bases and problems of the modern economy of micro and macro. It gives knowledge of the functioning of the economic system and tools for micro-and macroeconomic analysis and is a base for training in all subsequent economic courses, the curriculum of the subject. Thus formed economic thinking and ensure acquisition of skills for proper guidance and independent choice in the market environment. With these qualities it is an essential element in any economic training who claimed to have academic nature.

Course content:

Essence of economic science. Measuring economic activity: kragooborot income products. Production of goods and services. Cost and revenue of the company. Market and the market mechanism. Elasticity of supply and demand. Competition and market behaviour. Economic systems and market forces. Competition and market behaviour. Pricing and revenue production. Market economy, money supply and banks. State interference in the economy. Macroeconomic policy and economic theory. Management of the economy (fiscal and monetary policy). Currency and exchange-rate mechanism. Policy and international exchanges.

Teaching and assessment:

The course comprises of lectures and seminars. The lectures present the foundations of the course and are illustrated with appropriate examples from the economic reality in Bulgaria. The seminars are based on the lectures and are consistent with the covered topics. Various forms such as tests, tasks and cases are used so that students deepen their knowledge of the studied material. The course ends with a written exam in the form of test questions covering topics from the two studied modules – microeconomics and microeconomics, as well as written presentation on a topic from the course syllabus. The final mark is a medial of the result on the test, the grade on the seminal essay and the results from the two test administered during the term

S00701 Calculus – Part I**ECTS credits:** 6**Assessment:** exam**Departments involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 587, E-mail: mkoleva@uni-ruse.bg**Weekly workload:** 2lec +2sem+0labs+0ps+se**Type of exam:** written**Annotation:**

The course is fundamental for the mathematical education of the students in the undergraduate programme in Financial Mathematics. It is the foundation for other course as Mathematical Analysis - Part II, Discrete Mathematics, Numerical Methods etc.The content includes an introduction to Mathematical analysis. The syllabus contains topics as: Sets and mappings Real numbers, Basic elementary functions, Limits, Continuity of functions, Derivatives and their applications

Course content:

Basic themes: sets and mappings, sets of real numbers, basic elementary functions, limits of sequences of numbers and functions, continuity of functions, derivatives of functions and applications.

Teaching and assessment:

The educational process comprises of lectures and seminars. In the lectures the educational material is theoretically presented and demonstrated by examples. In the seminars the educational material understanding is controlled and skills for solving problems are developed.

S00769 Linear Algebra and Geometry**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 587, E-mail: mkoleva@uni-ruse.bg**Abstract:**

The discipline is a fundamental one for a bachelor degree in mathematics and its applications in economics and finances. It is based on secondary school education and gives knowledge for the courses on Discrete Mathematics, Computer Graphics and on some of those giving specialized knowledge for mathematics' application in economics and finances as Neural Networks for example.

Course content:

Coordinate systems and vectors. Line in a plane. Matrix operations. Determinants and methods of their calculations. Linear systems solving. Vector spaces and linear operators. Eigen vectors. Basis' orthogonalization. Quadratic forms and canonization. Second degree figures and surfaces and their canonization.

Teaching and assessment:

The seminars follow the lectures and put stress on the individual students' work. A seminal essay is written by the students. Two control works are planned after every part of the course. The final mark could be received before the session time. Its forming is defined in the teaching program of the course.

S00770 VBA Programming**ECTS credits:** 6**Assessment:** continuous assessment**Departments involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The purpose of the discipline is to give the students the basics of programming and to prepare them for developing in office environment with the programming language Visual Basic for Application, and also for full use of the applications in office environment and developing their own applications. The knowledge and possibilities, which are obtained by learning the discipline Programming with VBA, are basis for the Visual programming in Excel, and also there are necessary for all all disciplines which are related to the programming and can successfully to be used in diploma project and future work in the current specialty.

Course Content:

Structure and working principle of the computer. Arithmetic and logical basics of computer equipment. Concept of algorithm. Branching algorithms. Algorithms cycles. Algorithms with massifs. Project module and submodule – technology for programming in VBA. Special objects in VBA. Key elements of the programming language VBA. Data types. Constants, variables. Converting data. Structure of VBA program. Assignment operators. Built-in functions and expressions. Communication with the application. Control operators. Linear programs. Programming of branching algorithms. Cycles. Arrays, declaration. Static and dynamic arrays. Procedures and functions. Scope of the names.

Learning and assessment:

The students attend lectures and practical exercises. Practical exercises are conducted on subgroups in computer labs with personal computers. On these exercises the students receive self-solving tasks related to the lecture. The decisions are implemented in an appropriate programming environment VBA in Excel. The course finishes with a current assessment. The final assessment is based on an assessment of the work of students from control work during the semester (70%) and assessment of course work (30%).

0771 English in Financial Mathematics – 1**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Diana Stefanova, MA, PhD, Department of Foreign Languages

tel: 082 / 888 532; E-mail: dstefanova@uni-ruse.bg;

Senior Lecturer Elisa Georgieva, MA, Department of Foreign Languages

tel: 082/ 888 532; E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

'English for Financial Mathematics' comprises 60 classes and provides skills for oral and written communication in the foreign language in the students' field of study. Vocabulary, including basic terminology from the specialized subjects, is acquired. General topics related to the field of informatics are considered. Skills to extract essential information from a text and write a summary are developed.

Course content:

Introduction to the European Language Portfolio. Presenting oneself – name, educational background, areas of interest, motivation to study Financial Mathematics. Degree courses in Financial Mathematics in Europe and beyond. Note taking strategies during lectures. Basic terms used in differential and integral calculus. Basic terms in differential equations. Applications of differential equations.

Teaching and assessment:

Classes generally follow the routine of introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Communicative tasks that require logical and analytical approach are performed. Students are given two written tests during the semester.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The final mark is based on continuous assessment.

S02371 Insurance**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturer:

Assoc. Prof. Plamen Yalamov, MSc, PhD, Department of Applied Mathematics and Statistics

tel: 082 / 888 466, E-mail: yalamov@allianz.bg**Annotation:**

Life without risk is impossible. Risks are all around us. This course aims to acquaint students with what risks are insurable, which are not, and how we can insure against certain events. Insurance is a way to protect the economy against unforeseen events in order to ensure sustainable business development. The course acquaints students with the basic classes. There are also foundations of reinsurance, as an area which is very important for the security of insurance companies. The course is completed in accordance with similar courses in Bulgarian Economic and leading universities. After completion of the course students are expected to have been competent in the field of insurance.

Course content:

Origin of insurance. Principles of insurance business. Conclusion of insurance contracts and documentation. Reinsurance and co. Insurance against fire, business interruption, theft of cash. Insurance "all risk" carriage of goods against breakage of glass, household effects. Insurance license. Liability Insurance. Technical, marine and aviation insurance. Life. Health Insurance. Pension insurance and annuities. Insurance linked to investment funds. Children's insurance.

Teaching and assessment:

The topics discussed during the lectures are illustrated with a rich number of examples. The seminars add to the understanding of the main topics. The seminars include the solving of problems which is organized by the course tutor and which cover the course material studies during the lectures.

S00870 Calculus – Part II**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education.

Lecturers:

Assoc. Prof. Miglena Nikolaeva Koleva, MA, DSc, Department of Mathematics

tel.: 082/ 888 587, E-mail: mkoleva@uni-ruse.bg

Assoc. Prof. Yulia Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 226, E-mail: jchaparova@uni-ruse.bg**Abstract:**

The course is fundamental for the mathematical education and training of the students in the undergraduate programme in Financial Mathematics. It gets the students acquainted with the basic notions of the mathematical analysis such as definite integral, partial derivatives, and gives them computational abilities to solve linear difference equations and systems. The gained knowledge is necessary for further study of higher mathematics and mathematical finance

Course content:

Basic topics: Indefinite and Definite Integrals, Functions of Two Variables, Linear Difference Equations, Numerical and Power Series.

Teaching and assessment:

The educational process comprises of lectures and seminars. The teaching material is theoretically presented and demonstrated by examples during the lectures. The understanding of the course material is checked during the seminars and students' skills for solving mathematical problems are developed. The basic integrals and variables formulas are demonstrated. The students can use the tables with the presented formulas during the exam and the tests. Students need to prepare for the seminars in advance by learning the presented material during the lectures.

SB15476 Discrete Mathematics**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Iliyana Petrova Raeva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 606, E-mail: iraeva@uni-ruse.bg**Annotation:**

Basic notions and methods are introduced for analyzing discrete systems and structures and important applications of them are considered in different branches of mathematics giving an accent on financial mathematics. The course is based partly on the one of Linear algebra and geometry taught in the first semester and have applications in many further courses giving specialized knowledge in the field of mathematics' application both in economics and finances.

Course content:

Arithmetics of integers, set theory, graph theory, binary functions, abstract syllabus and sets of words, finite automata and algebraic approach to coding theory and cryptography, cases in financial mathematics solved by graph optimization.

Teaching and assessment:

The seminars follow the lectures and put stress on the individual students' work. A course assignment is done. Two control works are planned after every part of the course. The final mark could be received before the session time. Its forming is defined in the teaching program of the course.

S01094 Probability Theory**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888-466, E-mail: vpavlov@uni-ruse.bg

Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888-466, E-mail: eveleva@uni-ruse.bg**Annotation:**

The object of the Course on Theory of Probability is to students knowledge and skills to solve problems of non-deterministic situations. Probability theory involves the infrastructure required for producing such probabilistic models, on the other hand, is the science of analyzing experimental data. The course Analysis 1 is a foundation course of the course in Theory of Probability.

Course content:

Random events. Probability. Conditional Probability. Bayes' Theorem. Bernoulli's Scheme. Random Variables. Expected Values. Specific Discrete and Continuous Distributions. Multivariate distributions. Characteristic function. Distribution of functions of random variables. Convergence of random variables. Law of Large Numbers and Central Limit Theorem.

Teaching and assessment:

The lectures present the material theoretically and illustrate it with appropriate example problems. At the seminars the assimilation of the material is controlled. Two control works, 2 hours each, are conducted during the semester. The control works evaluation is taken in account in the final mark of the subject. At the beginning of the semester each student is given individual problems as a course assignment. It should be presented at the end of semester in a written form and is defended orally. The final assessment is done at the examination, which consists of solving problems and answering questions.

0771 English in Financial Mathematics – 2**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**

Senior Lecturer Diana Stefanova, MA, PhD, Department of Foreign Languages

tel: 082 / 888 532; E-mail: dstefanova@uni-ruse.bg;

Senior Lecturer Elisa Georgieva, MA, Department of Foreign Languages

tel: 082/ 888 532; E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

'English for Financial Mathematics' comprises 60 classes and provides skills for oral and written communication in the foreign language in the students' field of study. Vocabulary, including basic terminology from the specialized subjects, is acquired. General topics related to the field of economics are considered. Skills to extract essential information from a text and write a summary are developed.

Course content:

Economic indicators. Interpreting data. Presenting figures. Describing trends. Preparing a presentation. Stages and tips. Economic cycles. Recession and recovery. The 'Great Depression' and the 'Credit Crunch'. Economic sectors: primary, secondary and tertiary. Retail banking. Reading skills. Making notes strategically.

Teaching and assessment:

Classes generally follow the routine of introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Communicative tasks that require logical and analytical approach are performed. Students are given two written tests during the semester.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The final mark is based on continuous assessment.

S01223 Ordinary differential equations**ECTS credits:** 7**Assessment:** exam**Department involved:****Department of Mathematics****Faculty of Natural Sciences and Education****Lecturers:**

Assoc. Prof. Yulia Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg.

Pr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Abstract:**

The course "Ordinary Differential Equations" (ODE) gets the students acquainted with the basic notions and methods for ordinary differential equations. The main purpose is to teach students solving and analyzing the behavior of solutions in order to promote their educational and research activities. Some of the topics are methods for solving ODEs in quadratures, existence and uniqueness theorems for initial problems, phase portrait of linear systems in the plane, stability of equilibrium points, conservative systems. The subject is based on the courses of Linear Algebra, Calculus, Mathematical Analysis.

The gained knowledge is essential for further courses such as "Partial Differential Equations", "Numerical Methods", etc.

Course content:

First Order Differential Equations, Existence and Uniqueness, Linear Equations and Systems, Qualitative Theory of Differential Equations

Teaching and assessment:

The educational process is realized by lectures and practical exercises. Lectures are organized to present the material theoretically and by appropriate examples. Practical exercises are orientated towards controlling students' understanding and developing skills for solving problems. A term certification is obtained according to Internal rules for the educational activities. The exam test includes 6 problems and/or theoretical questions.

S01448 Statistics**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel: 082 /888 466, E-mail: vpavlov@uni-ruse.bg**Annotation:**

The course builds on the knowledge obtained in the field of Mathematical Statistics gathered as a result of the education and training in the course of Probability Theory. It puts an emphasis on applications of statistics in economics and finance. During the seminars the students are introduced to specialized software for data processing and statistical analysis SPSS (Statistical Package for Social Sciences). The curriculum is consistent with similar courses in leading Bulgarian and foreign universities.

Course content:

Nature of Statistical Learning. Measuring Scales. Statistical Monitoring. Statistical Group. Statistical Analysis. Graphical Statistical Images. Empirical Statistical Distributions. Numerical Characteristics. Established Representative Statistical Study. Statistical Evaluation. Point and Interval Estimates. Sampling Error. Determination of Sample Size. Statistical Hypothesis Testing. Check For Normality of the Empirical Distribution. Student's Criterion. Chi-Square Criterion. Analysis of Variance. Correlation Analysis. Regression Analysis. Verification Of Statistical Significance Of The Coefficients Of The Regression Model. Adequacy of the Model. Multiple Regression and Correlation. Evaluation of the Model. Applications. Empirical Studies in Business.

Teaching and assessment:

The teaching process comprises of lectures, seminars and a seminal essay. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises.

S01451 Visual Programming in Excel**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 326, E-mail: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Desislava Tsoneva Baeva MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course aim is to develop students' knowledge about Visual Programming in Excel and to give them new skills to develop their own interface in visual environment. The theoretical material, presented in lecture classes, is illustrated with appropriate examples. The practical exercises are based on programming in VBA environment in MS Excel.

Course content:

Introduction to Objects and Collections. Container, Circulation to Specific Objects in Collections or Container. Adding Objects. Projects and Modules. Menu. Interface Design. Dialogues. Elements of Dialogues. Built-In Dialogues. Custom Dialogues. Properties of Control Elements. Events. Methods. Management of Host Applications of Office.

Teaching and assessment:

Students attend lectures and practical exercises. The practice sessions are held with subgroups in computer labs. During these exercises students have to solve on their own tasks related to lecture material. Decisions are implemented in an appropriate programming environment VBA in Excel. The course finishes with an ongoing assessment. The final mark is based on evaluation of the students from the two control tests conducted during the semester (70%) and the average score achieved as a result of the current control during exercise.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:****SB13824 English in Financial Mathematics – 3****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**

Senior Lecturer Diana Stefanova, MA, PhD, Department of Foreign Languages

tel: 082 / 888 532; E-mail: dstefanova@uni-ruse.bg;

Senior Lecturer Elisa Georgieva, MA, Department of Foreign Languages

tel: 082/ 888 532; E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

'English for Financial Mathematics' comprises 60 classes and provides skills for oral and written communication in the foreign language in the students' field of study. Vocabulary, including basic terminology from the specialized subjects, is acquired. General topics related to the field of economics are considered. Skills to extract essential information from a text and write a summary are developed.

Course content:

Writing for academic purposes. Argument and structure. Presenting an argument. Backing up an argument. Using one's own and other people's words. Plagiarism. Quotes. Stock markets. Why do they move? Public listed companies. Initial public offering. Stock markets. Why do they move? Public listed companies. Initial public offering. Financing the company. Income statement/ Profit and loss account. Company reporting. The annual report. The chairman's statement at the AGM. The steps of an audit. The auditor's letter to management. Accountancy and professional ethics.

Teaching and assessment:

Classes generally follow the routine of introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Communicative tasks that require logical and analytical approach are performed. Students are given two written tests during the semester.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The final mark is based on continuous assessment.

SB15051 Computer Mathematics**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assit. Prof. Stefka Romanova Karakoleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 606, E-mail: skarakoleva@uni-ruse.bg**Weekly classes:** 2lec+0sem+0labs+2ps+se**Type of exam:** written and oral**Abstract:**

The course aims at studying the application of modern computer systems for mathematical computations and visualization, and build skills for independent solving various mathematical problems with application in all fields of science. The program focuses on the practical use of mathematics in all fields of business science and practice. Using the Computer Algebra system MATLAB and her symbolic package MUPAD makes the course clear, dynamic and useful.

Course Contents:

The course includes the study and use of commands and functions of the system MATLAB for solving problems of Linear algebra, Geometry, Complex numbers, Functions, Differential and integral calculus, Differential equations, Fourier series and others.

Learning and assessment:

The theoretical part is presented on the lectures and of the material being studied of recommended textbooks. The knowledge is applied during the practical exercises in a computer lab with Internet. The students with excellent results of the course will participate in the National Olympiad "Computational Mathematics".

S01463 Finance**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Economics

Faculty of Business and Management

Lecturers:

Assoc. Prof. Kameliya Boyanova Asenova, PhD, Department of Economics

tel.:082 / 888 416, E-mail: kassenova@uni-ruse.bg

Pr. Assit. Prof. Petar Penchev Penchev, PhD, Department of Economics

tel.: 082 / 888 347, E-mail: ppenchev@uni-ruse.bg**Weekly classes:** 2lec+2sem+0labs+0ps+se**Type of exam:** written and oral**Abstract:**

The course introduces students to the nature and manifestation of finance es specific monetary relations that underpin the functioning of the fields and branches of economy. An emphasis is placed on the finance in companies and enterprises (where many University graduates will be working) with special attention paid to their capability to influence the parameters of economic growth. This course is a prerequisite for other economic disciplines such as Accounting and Economic and Financial Analyses.

Course content:

The course aims to enlighten the theoretical fundamentals of financing, the forms of its organization and application, the prerequisites for increasing financial effectiveness, the indicators for measuring and assessing financial results, etc.

Teaching and Assessment:

The teaching methods seek to develop methodological and heuristic abilities in students as well as to broaden their world outlook. For this reason a lot of efforts are made to overcome the empirical interpretation of the issues and achieve their acquired knowledge. To that end, the course is taught through lectures and also seminars where students can extend their knowledge of the subject by discussing and solving a variety of specific problems.

1548 Partial Differential Equations

ECTS credits: 5**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc Prof. Yuliya Vancheva Chaparova, PhD, Department of Mathematics

tel. 082 / 888 226, E-mail: jchaparova@uni-ruse.bg

Pr. Assist. Prof. Tihomir Bogomilov Gulov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Annotation:**

The course is fundamental for the mathematical education of students studying in the undergraduate programme in Financial Mathematics. It forms the basis for other courses such as Numerical Methods etc. .The content includes an introduction to Partial differential Equations

Course content:

Basic topics: :Basic Equations of Mathematical Physics, One Dimensional Wave Equations, Reflection Method, Mixed Problem, Conservation of Energy; One Dimensional Diffusion Equation, Maximum Principle, Poisson Formula, Laplace Equation, Maximum Principle, Black-Sholes Equations, Mean Value Property of Harmonic Functions; Fourier Series, Fourier Method for Wave, Diffusion and Laplace Equations.

Teaching and assessment:

The educational process is realized by lectures and seminars. In the lectures the educational material is theoretically presented and demonstrated by proper example problems. In the seminars the educational material understanding is controlled and skills for solving practical problems are developed. A term certification is obtained according to Interval rules for the educational activities. The exam test includes 2 problems and one theoretical question from the educational material .

SB15292 Numerical Methods

ECTS credits: 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturer:

Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: eveleva@uni-ruse.bg

Pr.Assist. Prof Ivan Radoslavov Georgiev, MSc, PhD, Department of Applied Mathematics and Statistics

tel. 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The course studies a number of numerical algorithms for solving wide class of practical problems. The main objectives of the course are: to give basic knowledge in theory of numerical analysis, numerical linear algebra; numerical solution of differential equations; to develop skills for computer realisation of the numerical methods using the programming environment Matlab; to develop skills for intelligent application of approximation techniques to the types of problems that commonly occur in engineering and physical and computer science.

Course syllabus:

Programming with Matlab. Floating-point arithmetic. Numerical methods for solving one nonlinear equation and system of nonlinear equations. Interpolation and polynomial approximation. Numerical integration and differentiation. Direct and iterative methods for solving system of linear equations. Approximation theory. Numerical evaluation of eigenvalue and eigenvectors of matrix. Numerical methods for differential equations.

Teaching and learning methods:

The teaching is carried out by means of lectures and computer workshops. At the lectures the material is explained theoretically and illustrated by appropriate example problems. At the workshops the students solve theoretical and practical problems and use the programming environment Matlab for computer realization of the algorithms. There will be a course assignment that consists in giving different topic to each student, which should be developed theoretically and realized numerically on Matlab. The goal is the student to go alone into given problem. Two written tests, 2 hours each, are conducted during the semester. The final mark is formed according to the results in the written tests, course assignment and written exam.

S01550 Econometrics**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Velisar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assist. Prof. Vesela Atanasova Mihova, MSc, PhD, Department of Applied Mathematics and Statistics

tel: 082/ 888 424, E-mail: vmicheva@uni-ruse.bg**Abstract:**

The course studies some basic methods for measuring economic relationships specified by econometric models. It is concerned with the development of econometric methods, their assumptions, their uses and limitations. These methods are illustrated with examples from various areas of economics and business.

Course content:

Two-variable Regression Analysis, Multiple Regression Analysis, Multicollinearity, Heteroscedasticity, Autocorrelation, Regression on Dummy Variables, Regression on Dummy Dependent Variables, Dynamic Econometric Models: Autoregressive and Distributed-Lag Models, Stationary Time Series and Cointegration, Forecasting with Box-Jenkins Methodology.

Teaching and assessment:

The teaching comprises of lectures and seminars. During the lectures the material is explained theoretically and illustrated by appropriate examples. At the seminars students are taught to develop, estimate and analyse applied econometric models.

There will be a course assignment that consists in giving different economic problem to each student. The student should construct appropriate econometric model, to make an estimation of the parameters of the model, and to analyse the obtained results.

Two written tests, 2 hours each, are conducted during the semester. The final mark is formed according to the results in the written tests, course assignment and written exam.

SB15445 Programming with Python**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg

Assoc. Prof. Sergey Dimitrov Antonov, MEng, PhD, Department of Informatics and Information Technologies

tel.:082 / 888 475; E-mail: santonov@ami.uni-ruse.bg

Abstract: The course teaches the basic concepts and concepts of the Python programming language. Emphasis is placed on understanding the basic principles of programming as a whole and deepening language skills - working with expressions and control constructs, organizing checks and loops, working with I/O operations, using features, learning about different libraries and tools which are used to develop desktop and web applications. The program of study is purely practical, filled with many examples, projects and tasks to develop students' skills.

Course content: Installing Python 3. First program, structure, comments. Data input/output. Variables and data types. Mathematical operators. Sequence operators, assignment operators, bitwise operators. Cycles and conditional operators. Mathematical functions. Number types supported. Numerical functions. Introduction to regular expressions. Meta characters. Special sequences Lists. Recursion. Methods and functions for working with files. OOP and Python. Graphical interface. Signal and event processing. Dialogs. Dialog for opening and saving a file. Font and color selection dialog.

Teaching and assessment:

The lectures are combined with a talk and a lecture with elements of interactive and multimedia training, observation, demonstration, etc.. Practical classes are conducted in halls with personal computers and represent practical work under the guidance of a lecturer. Each student is assigned a separate course assignment. Students receive semester certification in a coursework assignment and attendance of at least 70% of the classroom hours provided in this program. At the end of the semester the students' theoretical knowledge is tested by a test on the whole material.

SB10203 English in Financial Mathematics – 4**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Diana Stefanova, MA, PhD, Department of Foreign Languages

tel: 082 / 888 532; E-mail: dstefanova@uni-ruse.bg;

Senior Lecturer Elisa Georgieva, MA, Department of Foreign Languages

tel: 082/ 888 532; E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

'English for Financial Mathematics' comprises 30 classes and provides skills for oral and written communication in the foreign language in the students' field of study. Vocabulary, including basic terminology from the specialized subjects, is acquired. General topics related to the field of economics are considered. Skills to extract essential information from a text and write a summary are developed.

Course content:

Insurance and risk. Personal insurance. Tips on getting the best insurance policy. Insuring risk at Lloyd's. How do companies manage risk? Insurance claims from a natural disaster. Reporting on insurance claims. Talk in higher learning. The dynamics of dialogue. Picking up the 'academic' way of thinking and arguing. Giving a presentation. Speaking to an audience. Pitfalls. Basic rules for presenting. Rehearsing the talk.

Teaching and assessment:

Classes generally follow the routine of introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Communicative tasks that require logical and analytical approach are performed. Students are given two written tests during the semester.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The final mark is based on continuous assessment.

S02374 Stochastic Analysis and Applications**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Leda Dimitrova Minkova, MSc (Math), PhD (Math), Dept. of Probability, Operations Research and Statistics, University of Sofia,

tel.: 02 / 978 3185, E-mail: leda@fmi.uni-sofia.bg**Abstract:**

The course offers a brief description of random processes described by stochastic equations and introduction to stochastic analysis. Special attention is paid to particular Vinerov process and Ito processes. Consider the relationship between equations and stochastic equations with partial derivatives in the context of their application in financial theory. Studied the conditions for the absence of arbitrage and market completeness in terms of probability measures. Displayed formula of Black - Scholes formulas and prices of some exotic options. The course has input links with courses in Calculus, Ordinary and Partial Differential Equations and Probability Theory.

Course content:

Random processes in continuous time. Task for the first time reached the level. Semimartingali. Decomposition of Doubs - Meyer. Stochastic integrals. Ito's formula. Absolute continuity of probability measures. Derivative of the Radon - Nicodemus. Girsanov Theorem. Theorem martingalno performance. Stochastic differential equations driven by Vinerov process. Markowski property decisions. Linear stochastic differential equations. Exponential martingali. Methods for solving the GG. Formula of Feynman-Kac. Semimartingalen model of financial market. Self-financing strategies. Constructing martingalni measures. Eliminating the risk. Conditions for the absence of arbitrage. Completeness of the market. Fair value of European call options. Formula Black - Scholes. Barrier options.

Teaching and assessment:

The teaching process comprises of lectures and seminar exercises. Topics discussed during lectures are to be illustrated and given meaning additionally through seminar exercises.

S02373 Introduction to the Financial Mathematics**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yuriy Dimitrov Kandilarov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg**Abstract:**

The course is a based one for a bachelor degree in mathematics and its applications in economics and finances. The programme unit aims to enable students to acquire active knowledge and understanding of some basic concepts in financial mathematics. It gives a mathematical perspective on the valuation of financial instruments.

Course content:

Simple interest, compound interest, relative and conformal interest rate, anticipate interest rate, discount, mathematical and banks discount rates, annuity, periodic interest rate, private means, long loan, secured loans, bonds and other financial derivatives.

Teaching and assessment:

The seminars follow the lectures and put stress on the individual students' work. A course assignment is done. Two control works are planned after every part of the course. The final mark could be received before the session time. Its forming is defined in the teaching program of the course.

Weekly classes: 3lec+2sem+0labs+0ps+ca**Type of exam:** written**S00876 Operations Research in Economics****ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg**Abstract:**

The course's aim is to make students acquainted with some specific models arising in solving management problems and up-to-date mathematical and statistical methods for their solving, analyzing and interpretation of received solutions. The character of this course is markedly applied. All the discussed examples and problems have their economics applications near the practice. Demonstrations with usage of software packages for solving larger real models are provided.

Course content:

Subject and aim of operations research. Mathematical model of operations. Efficiency and optimum criterion. General formulation of the linear programming problem (LPP). Working out linear programming models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the LSE solutions. Graphic method for solving LPP. Simplex Method. Duality in linear programming. The transportation problem. Goal programming. Integer programming. Network analysis, including PERT-CPM. Elements of queuing theory. Elements of inventory theory.

Teaching and assessment:

The teaching process comprises of lectures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the opportunities of the software package MATLAB for solving more complicated and close to the practice problems.

Weekly classes: 3lec+2sem+0labs+0ps+ca**Type of exam:** written

SB15296 Neural Networks in Finance**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Angela Slavova Popivanova, MSc, PhD, DSc, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

tel.: 0888 132 514, E-mai: slavova@math.bas.bg**Abstract:**

The subject is aimed to make students acquainted with general concepts, methods and algorithms from the theory of neural networks with applications in finance. There are examples near to the practice.

The course involves lectures and exercises held at computer laboratories. During the exercises students get to learn how to use simulation tools for neural networks with Matlab.

Course syllabus:

Introduction to neural networks (NM). Structure of neural networks. Training methods and algorithms for NM. Multi-layer networks. Method backpropagation of the error. Self-learning neural networks. Self-organizing networks. Hopfield Networks. Associative memories. Applications of neural networks in finance - bankruptcy prediction, mortgage risk assessment, credit scoring, stock market forecasting, options volatility forecasting, time series forecasting.

Teaching and learning methods:

During the lectures the teaching material is presented theoretically. The goal of the practice classes is theoretical knowledge to find their practical application. Students get acquainted during these classes (held at computer laboratories) with simulation tools for neural networks with Matlab with applications in finance. Course assignment is provided for each student.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**S02375 Typesetting with LaTeX****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assit. Prof. Stefka Romanova Karakoleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 606, E-mail: skarakoleva@uni-ruse.bg**Abstract:**

The course familiarises the students with the basics of computer typesetting system LaTeX and build skills for independent creation of digital documents in various scientific areas for publishing on paper, compact disk or Internet.

Course Contents:

Structure of the document, floating objects-figures and tables, fonts, mathematical formulas, arrays, matrix, 2D and 3D graphics, importing of eps-graphics, theorems and definitions. Using PDFLaTeX program for creation of hypertext documents and e-books and presentations. Programming with LaTeX. Creation of new commands, environments, theorems, packages and styles.

Teaching and assessment:

The course includes lectures and practical seminars. The main material is presented at the lectures. At the practical seminars the students typeset in computer two documents – article and book with the basic elements of the article/book. The final mark is formed mainly from the exam, but also from work through the semester.

S02376 Computer Graphics**ECTS credits:** 5**Assessment:** current assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel. 082 / 888 326, E-mail: rir@ami.uni-ruse.bg**Abstract:**

The course "Computer graphics" have to familiarise the students with the basic principles of developing and working of interactive computer graphic systems and to give them the knowledge, which are necessary for development of program systems for geometrical modelling of objects and graphic documents, using computers. Main principles and approaches of visualization of 2-D and 3-D objects are discussed.

Course content:

General information about computer graphics. Structure of interactive graphic systems. Peripheral devices for computer graphics. Architecture of up-date raster graphic displays. Basic graphic plain and 3-D space transformations. Matrix description. Composition of transformations. 3-D objects plain projections. Object description in graphic systems – models. Approximation and modelling of curves – interpolation, cubic splines, B-splines, Bezier curves. Organization of interactive work in computer graphic systems. Computer graphics colour, colours' models.

Teaching and assessment:

The course comprises lectures and practical classes. The main material is delivered at the lectures. At the seminars the students solve themselves problems from the theoretic material and develop programs using suitable program software (Borland C++, Delphi, Visual C++). The final mark is composed from the mark of continuous students work through the semester (30%) and the exam result (70%).

S02378 Insurance Mathematics**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Plamen Yordanov Yalamov, MSc, PhD, Department of Applied Mathematics and Statistics

tel: 082 / 888 466, E-mail: yalamov@allianz.bg**Abstract:**

The course aims to familiarize students with basic mathematical models arising in solving management problems of economic realities and modern methods for solving, analysis and interpretation of the obtained solutions. The course emphasized practical application. There are considered examples and problems with economic applications, similar to the practice. The insurance business is an area with many applications of mathematics and models considered are very important in the insurance practice.

Course content:

Essence of General Insurance. Insurance Operations. Role of the Actuary. Statistical Basis of Insurance. Frequency of Damage And Used Distributions. Risk Theory. Capital and Profit. Reinsurance. Billing Practices. Classification of Risks. Forecasting In General Insurance. Techniques for "Run-Off" Results. Calculation of Premiums. Insurance Reserves.

Teaching and assessment:

The teaching process is realized through lectures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the solving more complicated and close to the practice problems.

S02379 Monte Carlo Methods in Finance**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Prof. Ivan Tomov Dimov, MSc, PhD, DSc, Institute of Information and Communication Technologies
tel.: 02 / 979 6641, E-mail: ivdimov@bas.bg**Abstract:**

The subject aim is to teach students the basics of Monte Carlo methods in finance and management in solving problems of economic reality. The course deals with modern methods for Monte Carlo analysis and interpretation of the obtained solutions. The course has markedly applied character. Examples and problems with economic applications, similar to the practice are considered. Scientific methods based on mathematical models developed in recent years and widely applied in practice in countries with developed market economy are examined. During the exercise provides a demonstration of the use of computer programs in MATLAB.

Course content:

Basic Definitions: Probability Space, Random Variables. Discrete And Continuous Random Variables. Monte Carlo Las Vegas Methods: Definitions And Examples. Error Control In Monte Carlo. Analysis Of The Error. Computational Complexity Of Algorithms. Efficient Monte Carlo Algorithms. Superconvergent Algorithms. Random Interpolation Quadratures. Quasi-Monte Carlo Algorithms. Adaptive Monte Carlo Methods For Linear Problems. Stochastic Financial Models. Analysis Of Options. Monte Carlo Methods For Evaluating American Options And Portfolio. Black-Scholes Model.

Teaching and assessment:

The teaching process is realized through lectures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the opportunities of the software package MATLAB for solving more complicated and close to the practice problems.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**SB15167 Modelling in Finance****ECTS credits:** 6**Assessment:** exam**Departments involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 466, E-mail: vpavlov@uni-ruse.bgPr. Assist. Prof. Tihomir Bogomilov Gyulov, MSc, PhD, Department of Mathematics
tel.: 082 / 888 489, E-mail tgulov@uni-ruse.bg**Abstract:**

The course offers mathematical methods for analyzing pricing financial derivatives. The students can use the gained knowledge for their master thesis elaboration as well as in practice.

Course contents:

The Black-Scholes equation. European options: mathematical models and numerical simulation. Problems with free boundaries. Numerical options. American options and Asian options.

Teaching and assessment:

The course consists of lectures and seminar exercises in a computer laboratory with MATLAB software installed, consultancy and a course work. There is a final written exam at the end of the course.

S02381 Web Design**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Margarita Stefanova Teodosieva, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: mst@ami.uni-ruse.bgAssoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the elements for designing a website and web-based applications. The prerequisite for studying the course is the knowledge gained from the following courses: Object-oriented programming, Software engineering, Multimedia systems and technologies, Internet technologies

Course content:

HTML, CSS, Javascript, Web standards, Products used for designing websites, Planning, Navigation schemes, Storyboarding, Placing items on a page, Colour and colour schemes, Choosing colours, Fonts and typography, Using web graphics, Web graphic types and file formats.

Teaching and assessment:

The course comprises of lectures, practice sessions and a course assignment. The lectures give theoretical knowledge on the main requirements and statements for making preliminary preparation, data gathering, design features and development of web-based application. Practice sessions are held in computer labs where students apply theoretical knowledge into practice. The course task is individual and it is prepared as homework. Students get tutorials for developing the course tasks.

S02382 Multimedia Systems and Technologies**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgAssoc. Prof. Svetlozar Stefanov Tsankov, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with multimedia basic components and the stages for developing multimedia applications (MMAs). Students study the fundamentals of HTML programming language and acquire skills for using modern systems and technologies in designing multimedia CD and Web-based applications.

Course content:

Multimedia – basic terminology, areas of application. Requirements and stages for developing Visual design, navigation and layout. HTML. Multimedia elements: text, graphic, sound, video and animation. Author's systems for designing MMAs. Programming languages in author's systems. Programming languages. Virtual reality.

Teaching and assessment:

Lectures are conducted 2 hours weekly. Practice sessions are 3-hour classes and are held under the supervision of an assistant professor/instructor following the theory taught at lectures. In the beginning of the sessions students do a 5-minute brief test or oral questioning as feedback. Besides practice sessions, students have to work on individual course assignment in extra time. In the end of the course they do a written test covering the lecture material.

S02377 Financial management**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Management and Business Development
Faculty of Business and Management**Lectures:**Assoc. Prof. Lyudmila Mihaylova Mihaylova, MEcon, PhD, Dept. of Management and Business Development
tel: 082 / 888 518, E-Mail: lmihaylova@uni-ruse.bg**Abstract:**

This course will present the theoretical rationale of the main issues in financial management. The focus is on financial planning as a basis for developing specific business initiative. As a result of the course students will be able to make financial statements, prepare assessments and management decisions relating to the financial resources of the firm.

Course content:

Introduction to the Course "Financial Management". Management of the Firm Capital. Management of Revenue and Expenditure of the Firm. Cash Flow Management. Analysis of Liquidity of the Firm. Analysis of Financial Performance of the Firm.

Teaching and assessment:

The traditional way of delivering lectures will be enriched by visual materials put on slides and or multimedia packages. At seminars students will work on case studies. The continuous assessment is on the basis of tests and students' participation. The final note will be the average of the note from the continuous assessment and the one from the final exam..

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**S02410 Time Series****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturer:**

Prof. Angela Slavova Popivanova, MSc, PhD, DSc, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences

tel.: 0888 132 514, Ee-mai: slavova@math.bas.bg**Abstract:**

The course is aimed at making students acquainted with models connected with data varying in time and applied for solving management problems from economy. There are examples near to the practice. Due to the fact that neural networks have application in modern finance, the subject will study the their connection with time series and risk management.

The course involves lectures and practical exercises held at computer laboratories. During the exercises students get to learn how to use simulation tools for application of neural networks in time series forecasting.

Course content:

Examples for time series; Time series components; Stationary models; Autocorrelation function; Data loading; Describing statistics and graphics; Casual processes; General properties; Linear processes; AR(p), MA(q), ARMA(p,q) models; Adequate check; Choice of the model; Time series forecasting; Application of neural networks; Non stationary time series; ARIMA models; Season ARIMA(p,d,q,P,D,Q) s models; Applications in finance.

Teaching and assessment:

During the lectures the teaching material is presented theoretically. The goal of the seminar classes is the theoretical knowledge to find their practical application. Students get acquainted during these classes (held at computer laboratories) with simulation tools for neural networks with applications in finance.

S02384 Risk Analysis**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Iliya Aleksiev Brayanov, MSc, PhD, DZI Insurance PL
tel.: 02 / 902 70 41, E-mail: iliya.brayanov@dzi.bg**Abstract:**

The purpose of this course is to make students acquainted with basic concepts, problems and methods in risk analysis and risk management. The course contains information on the application of risk analysis in managing the market and insurance risks and the assessment of capital requirements.

Course content:

Valuation of financial instruments. Risk management – basic concepts. Basic risk measures and methods in risk analysis.. Asset and Liability management (ALM) – basic concepts. ALM models in life insurance. ALM – analysis and reporting. Introduction to insurance risk. Valuation of insurance obligations. Loss distributions. Utility and credibility theory. Risk models, Ruin theory. Risk adjusted performance measurement. Introduction to Solvency 2.

Teaching and assessment:

During the lectures the teaching material is presented theoretically. The theory is illustrated with numerous examples. The goal of the seminars is to improve the understanding of the material. During the classed are solved practical problems and examples from lectures. Continuous assessment involves conducting two tests in the form of tests. Course work (assignment) is provided for each student.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**SB14352 Financial Engineering****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturer:**Pr. Assist. Prof. Elitsa Rumenova Raeva, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 424, E-mail: eraeva@uni-ruse.bgPr. Assist. Prof. Vesela Atanasova Mihova, MSc, PhD, Department of Applied Mathematics and Statistics
tel: 082/ 888 424, E-mail: vmicheva@uni-ruse.bg**Abstract:**

The subject aim is to make students acquainted with the basic knowledge in the area of the financial markets and with the main connections in the same area between theory and practice. The character of this course is markedly applied. Models and technologies are preview together with examples and tasks. All the discussed examples and problems have their economics applications near the practice. Demonstrations with usage of software packages for solving real problems are provided.

Course content:

Introduction in Financial engineering. Investments and incomes. Markets and market structure. Money market. Capital market. Bonds. Market indexes. Bond market. Collective investment scheme and other investment companies. Interest and factors define them. Risk.

Teaching and assessment:

The teaching process is realized through lectures and seminar exercises. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the opportunities of the real practice problems.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written

SB14353 Computational Finance**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Iliyana Petrova Raeva, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082 / 888 606, E-mail: iraeva@uni-ruse.bg**Weekly classes:** 2lec+0sem+0labs+2ps+ca**Type of exam:** written and oral**Abstract:**

The course is included in the basic module of the curriculum of undergraduate study programme in Financial Mathematics. The students receive basic knowledge of financial markets: modeling of financial options, basic financial instruments stochastic processes, method "Monte Carlo", etc. Previously submitted ideas and models are summarized in algorithms. It is essential for understanding the matter by students' numerical experiments and individual work during the exercises. For the purpose of discipline will be used software MATLAB and SPSS (for making statistical analysis). The course is related to the courses in Financial Management, Risk Analysis, Financial Markets Theory and Portfolio Management.

Course contents:

Introduction To Computer Finances. Basic Financial Instruments. Contracta Risk-Free Profit. Interest Rate. Modelling of Financial Options. Geometry of Options. Mathematical Model. Binomial Method. Stochastic Processes. "Wiener Process," Stochastic Integral. Stochastic Differential Equations. Risk-Neutral Evaluation. Theorem Girsanov. Random Numbers. Regular Deviations. Linear Congruent Generators. Fibonacci Generators. Random Numbers From Other Distributions. Inversion. Transformation. Method of Acceptance and Rejection. The "Monte Carlo" Method (MCM). Approximate and Absolute Error. Strong and Weak Convergence. MMC - European Options. A Method Of Reducing The Variation. MMC For American Options. Parametric Method. Regression Method. Basics of the Method of Finite Differences. The Crank-Nicolson Method. Linear Complementarity. Inequalities. Addition to the Task of Black-Scholes.

Teaching and assessment:

The theoretical material is presented during the lectures. Some of the illustrations and examples are in the form of presentation. During the practical sessions students solve practical problems which are basically related to calculations. Students develop generalized algorithms to each of the methods or use the developed algorithms under the MATLAB and SPSS software products which are available in the university network system.

S02389 Internet Technologies**ECTS credits:** 6**Assessment:** continuous assessment**Departments involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Dr. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 475, E-mail: ceco@ami.uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 326, E-mail: val@ami.uni-ruse.bg

Abstract: The course aims at familiarizing the students with the services, protocols and technologies in Internet, to give knowledge and skills to client-server technologies, to create server based DataBase applications via Internet. The theoretical material is illustration with many examples. MySQL and PHP (open source code) are used for the seminars, where the students develop small applications. As there is no course as "Computer networks and communications", it also introduces main terms from the computer networks.

Course content: Introduction and main terms in Internet. Client-server technology. World Wide Web (WWW) and HTTP protocol. PHP: Data types, variables, operators, statements. Arrays, strings, files. Dynamic content generation. Cookies and sessions. Apache server. PHP and MySQL linking. Users cerification. Colours and images. Tables and forms. Frames and inserting objects. JavaScript: inserting in HTML. Document and Window objects and their methods.

Teaching and assessment: The teaching is organized in lectures, practical sessions, course work. The lectures explain the theoretical fundamentals of the material and give suitable examples. The students should be able to work alone and develop simple client-sever database application during the practical sessions, which are in computer labs. The course finishes with a continuous assessment mark. It is computed as a weighted sum of two control works (0.3), workshop (0.2) and the course assignment (0.2).

S)2390 Information Systems**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 464, 888 326, E-mail: katya@ami.uni-ruse.bg

Pr. Assist.Prof. Magdalena Hristova Andreeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 470, E-mail: magie@ami.uni-ruse.bg**Abstract:**

The course objective is to introduce the principles of designing, creating and maintaining of information systems. Students study the technologies for analysis and development of applied information systems, as well as for data exchange, management, monitoring and security. The course teaches the main statements and terminology of information system theory, the basic approaches for information systems development, as well as the principles of modeling processes and data. In result of the practice students are able to build up a complete information system.

Course content:

Data and information. System and information system in general. Information system model. Approaches for designing information systems. Information system service life. System analysis. Document movement charts. Block diagrams of data streams. Data dictionaries. Information system architecture. Information system using file servers. Information systems based on client-server architecture. Internet-based information systems architecture. Information systems management.

Teaching and assessment:

The course includes lectures, practice sessions and a course assignment. Lectures are of disputable character. Practice sessions are conducted with student teams on preliminarily assigned tasks. In the end of the term students defend the developed information system. The course assignment is given on. During the term students make three tests including theory and problems. The final grade of the continuous assessment is formed on the basis of the results from the practice, the course assignment and the tests.

Weekly classes: 2lec+0sem+0labs+2ps+ca**Type of exam:****S02438 Business Simulations and Optimization****ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**

Department of Management and Business Development

Faculty of Business and Management

Lecturers:

Assoc. Prof. Aleksandar Petkov Petkov, MEcon, PhD, Department of Management and Business Development

tel.: 082 / 888 776, E-mail: apetkov@uni-ruse.bg**Abstract:**

The course aims to implement general knowledge and skills of the students, associated with the modeling and analysis of business organizations by modern methods and techniques of simulation. Students are applying the theoretical knowledge by case studies and business situations.

Course content:

Business process management. Nature and basic concepts of system dynamics. Structure of the dynamic system. Nature and characteristics of business models. Business process modeling. Business simulation. Use of simulations in business. Optimization of business processes. Linear optimization technologies in business. Production program's optimization.

Teaching and assessment:

The teaching is conducted through lectures, exercises and course work. The topics of the lectures gives students fundamental theoretical knowledge. The lectures are illustrated by multimedia and demonstration of dynamic models, created with VenSim and FORIO. The exercises are conducted in a computer lab. The students must be prepared in advance by learning the lectures and handouts presented in the course's WEB site.

Weekly classes: 2lec+0sem+0labs+2ps+cw**Type of exam:** written test

SB15052 Mathematical Economics**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yuliya Vancheva Chaparova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg**Abstract:**

The aim of the course is to present the basic mathematical methods for optimization of nonlinear problems under certain constraints as well as to use their applications to the economics. Both classical and modern approach is proposed.

Course contents:

Mathematics: Convexity and Concavity, Unconstrained and Constrained Optimization, Fixed Point Theorems, Fréchet and Gateaux derivatives of functionals, Euler equation. Applications to Economics: the Consumer's problem, General equilibrium theory, Welfare theorems, Macroeconomic growth models.

Teaching and assessment:

The educational process is realized by lectures and seminars. An individual homework is assigned to each student in the end of the semester. A term validation is obtained according to the Internal rules for the educational activities.

SB15053 Game Theory**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Ivan Georgiev, Department of Applied Mathematics and Statistics
tel.: 082 / 888 424, E-mail: irgeorgiev@uni-ruse.bg

Abstract: The course presents an introduction to one of the most modern and yet developed subjects in knowledge – the science for game theory. The subject is the process of decision making in a multiplayer environment, where the one's actions potentially interfere with the other's interest and decisions. Analyzing the model, the player builds a behavioural norm which allows for greater utility. This course develops contemporary practical skills about the main approaches in analyzing financial and economic processes, behavioural norm in decision making and applying them in predicting. What is more, the course introduces the students with the fundamental techniques for successfully doing the aforementioned activities, especially mathematical modelling via the creation of particular types of game models and their analysis.

Course content: game models; non-cooperative games; antagonistic games; matrix games, mixed strategies, dominant strategies, linear optimization; bimatrix games; Cournot and Bertrand models; dynamic games – games with complete and imperfect information, games with complete and perfect information, economic models, Stackelberg models; multistage dynamic games with complete and perfect information, symmetric and asymmetric patience models; games with incomplete information, Bayes theory for decision making, Bayes – Nash equilibrium; dynamic games with incomplete information, signaling games, relationship between financial mediators and debtors.

Teaching and assessment: In the lectures the course content is presented in a theoretical manner and it is accompanied by a set of illustrative examples. During the practice the students are solves casussen and problems from the taught material under the guidance and support of the lecturer. Two tests are planned during the semester. The students are intended to develop a coursework assignment, where to include one problem per topic from the taught material. The main way to form the course grade is to conduct a written exam.

S00853 Business Economics**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Economics

Faculty of Business and Management

Lecturers:

Assoc. Prof. Lyubomir Dimitrov Lyubenov, MEcon, PhD, Department of Economics

tel.: 082 / 888 347, E-mail: lyubenov@uni-ruse.bg**Abstract:**

The purpose of the "Business Economics" course is to develop knowledge and skills in the future graduate students (Master level) for the correct and adequate market evaluation of processes and phenomena in real market conditions by means of application of appropriate and contemporary economic methods. The educational process is aimed at acquiring the laws of the market economy and their practical application in specific market situations.

Course content:

The following topics are studied in details: organisational types of enterprises; relations of the enterprise with the budget; the value of money with time and methods for evaluation of investments; repayment schedules of the enterprise; working capital of the enterprise; main capital and capital structure of the enterprise; depreciations of the main capital of the enterprise; costs and revenues in the enterprise.

Teaching and assessment:

The lectures are presented within the classical scheme and visualised with slides and presentations when necessary. After each topic, practical issues are discussed and resolved. The requirements for the validation of the semester are in accordance with the university rules and the final assessment of the knowledge takes the form of continuous assessment – solving of specific tasks and development of theoretical issue.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written and oral**SB14354 Financial Law****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Public Law

Faculty of Law

Lecturers:

Pr. Assist. Prof. Elina Atanasova Marinova, ML, PhD, Department of Public Law

tel.: 082 / 888 429, E-mail: elina_marinova@uni-ruse.bg**Abstract:**

The importance of public finances determines the importance of financial legislation. Students get acquainted with one of the branches of public law - financial law, which as a body of law is subject to the processes of accumulation, distribution and utilization of national income and control this activity. The main objective of the course is to equip students with knowledge on the legal regulation and management of financial relationships.

Course content:

General Characteristics of the Concept of Financial Law and Its Sources. Financial Law. Financial Relationships. Financial Instruments – General Characteristics, Conditions of Validity And Remedies. Budget Law And Procedure. Legal Regime of Budget Revenues. Legal Characterization of Taxes. Types of Taxes. Legal Characterization of the Fees And Duties. Means To Repay Public Debts. Legal Framework of Financial Control. State Financial Inspection. Court of Auditors. Financial Supervision Commission. Banking and Banking System - The Role of BNB. Currency Legislation and Currency Regime.

Teaching and assessment:

The lectures give students the opportunity to become familiar with the basic regulations in the field of financial law, to interpret and analyze relevant legal regulations. During the course discussions are held and students have the chance to work with the regulations and solve different cases. The exam consists of the written presentation to a given question from the course syllabus.

Weekly classes: 2lec+0sem+0labs+0ps**Type of assessment:** written

SB14355 Methodology of Scientific Research**ECTS credits:** 1**Assessment:** continuous assessment**Методическо ръководство:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics
tel.: 082/ 888 466, E-mail: vpavlov@uni-ruse.bg**Abstract:**

The course aims to familiarize students with the main points of the methodology of research in general and in the field of mathematics. It is directly aimed at graduating of students. An important focus of the course is the development of students's skills for writing a scientific article that is a requirement for the development of the so-called Pre-diploma Graduation Project. Another important focus is connected with creating students' skills for presentation of the research done and the results obtained. Upon the completion of the course students are expected to have developed competences in the field of research development, publication and presentation.

Course content:

Methodology of Research. Main Requirements. Significance of the Problem. Types of Research. Principles and Stages of Research. Academic Article. Structure of a Scientific Article. Literary and Scientific Style. Steps of Writing a Scientific Article. Classification Scheme of Mathematical Areas – Mathematics Subject Classification. International Databases. Indexing. Citation. Impact Factor. Impact-Rank. Presentation of a Scientific Publication. Milestones in the Preparation of a Presentation. Rules for Creating Slides. Scheme of the Presentation. Behaviour During the Presentation. Answering Questions.

Teaching and assessment:

The teaching process is in the form of lectures. Each student receives an individual task to draft and present a short presentation on a freely chosen topic in the field of Financial Mathematics. A discussion is made in the classroom in which students comment on the presentation of their peers and make recommendations.

Weekly classes: 1lec+0sem+0labs+0ps**Вид на изпита:****SB14356 Language and Style****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Arts
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The aim of the course is to enhance the knowledge and skills of students in writing formal and business style documents through the acquisition of the linguistic and stylistic specifics of the official documents in Bulgarian and English language and the respective spelling conventions, layout standards and the requirements for such types of documents.

Course content:

The Functional Style – Definition and General Characteristics. The Style of Official Documents as a Functional Variety of the Modern Bulgarian and Modern English Languages. Substyles and Linguistic Characteristics of the Official Language Style in Bulgarian and English. The Style of Official Languages and the Business Language. Genre Specifics of the Bulgarian and English Official Documents – Typology, Formal Requirements, Grammar and Spelling Conventions.

Teaching and assessment:

The course comprises of lectures which present the main theoretical considerations underlying the discussed topics. Each lecture is supplemented with a range of tasks and sample texts (in Bulgarian and in English) which illustrate the main types of documents studied. The continuous assessment includes the grading of the written official documents by the students in the two languages, as well as a test that contains questions covering the main topics presented at the lectures. The final grade is the average of the grades received on the submitted written documents and the grade on the test.

Weekly classes: 2lec+0sem+0labs**Type of exam:** written

S02418 Practicum in Financial Mathematics**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yuriy Kandilarov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 634, E-mail ukandilarov@uni-ruse.bg

Pr. Assist. Prof. Tihomir Bogomilov Gyulov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail tgulov@uni-ruse.bg**Abstract:**

The course summarizes several topics related to the financial markets modelling. The students have the opportunity to gain extra skills and training to solve practical tasks in application of methods studied in previous subjects from the curriculum. These tasks concern basic problems from the financial engineering. The course is made up in conformity with other similar courses taught in Bulgarian universities as well as leading universities from abroad.

The prerequisites are as follows: Probability theory, Statistics, Stochastic analysis and applications, Monte Carlo methods in finance, Time series, Partial differential equations, Numerical methods.

Course contents:

Asset price – binomial model. Arbitrage. European and American style options. Random variables and processes. Itô's integral and formula. Stochastic differential equations. Black-Scholes-Merton model. Risk neutral measure and Girsanov theorem. Monte Carlo methods. Numerical methods in option pricing.

Teaching and assessment:

The course is taught through practical classes. Each student has to work on an individual problem assigned each week. The classes are conducted in computer labs. The continuous assessment grade is based on the work during the practice sessions as well as the results from two tests held in the semester.

SB15444 Markov Processes**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Velizar Todorov Pavlov, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082/ 888 466, E-mail: vpavlov@uni-ruse.bg

Pr. Assit. Prof. Stefka Romanova Karakoleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel.: 082 / 888 606, E-mail: skarakoleva@uni-ruse.bg**Abstract:**

Markov chains are an important mathematical tool in stochastic processes. The underlying idea is the Markov Property, in order words, that some predictions about stochastic processes can be simplified by viewing the future as independent of the past, given the present state of the process. This is used to simplify predictions about the future state of a stochastic process.

Course Contents:

The course on Markov processes is an important element in the training of students and has a strong impact on their development as good specialists on financial mathematics. The course include the base of the theory of the Markov chains and its applications in financial mathematics.

Learning and assessment:

The training is done through lectures and seminars. In the lectures the students acquaint themselves with the theoretical foundations of the study material, as the theory is illustrated with practical examples. In the seminars, the students acquire the skills to solve a lot of practical problems with application of Markov chains in finance: credit risk measurement, predict market trends, queuing theory. The assessment is by written exam.

S02397 Credit Risk**ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Leda Dimitrova Minkova, MSc, PhD, DSc, Dept. of Probability, Operations Research and Statistics, University of Sofia

tel.: 02 / 978 3185, E-mail: leda@fmi.uni-sofia.bg**Abstract:**

Assessing credit risk is a fundamental task rashava by banks lending, insurance companies work with firms from credit agencies and all financial institutions. The purpose of this course is to acquaint students with the basic problems in solving this problem and solving methods. The course contains information on the application of credit risk in credit rating.

Course content:

Modeling the term structure of interest. Model of Merton. Reduced model of credit risk. Timing of the first reach and intensity of the process. Martingal associated with gambling feature. Theorem of martingal performance. Changing the probability measure. Martingal characterization of gambling function. Compensator random moment. Chance of bankruptcy schemes and debt recovery. Credit spreads in the reduced model. Risk assessment and credit rating.

Teaching and assessment:

The teaching process comprises of lectures and seminar exercises. Topics discussed during lectures are to be illustrated and given meaning additionally through seminar exercises.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written**S02435 Theories of Economic Growth****ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Economics

Business and Management Faculty

Lecturers:

Assoc. Prof. Dyanko Hristov Minchev, MEcon, PhD, Department of Economics

tel.: 082 / 888 557, E-mail: DMinchev@uni-ruse.bg**Abstract:**

The course "Theories of Economic Growth" studies the general notions, categories and laws related to the economic growth and the economic development. The subject traces historical the mathematical models, created by economists in different periods which are trying to define the fundamental causes of economic growth, because not a single economic theory is shared by all economists. The subject is closely related to Microeconomics, Economic analysis and Mathematics without which a serious study of economic growth and economic development is not possible.

Course content:

Economic growth and determinant factors. Economic cycle. Early theoretical growth models Keynesian model. Neoknesian and postkeynesian growth models. Neoclassical and endogenous growth models.

Teaching and assessment:

The training is conducted by means of lectures, where information is presented, and seminars, where some questions raised in the lectures are further clarified with the active involvement of the students. Students' participation in seminars is through presentations, talks, essays and reviews prepared on their own initiative or assigned by the lecturer, which represents their extramural activity.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written

S02387 Theory and Management of Investment Portfolios**ECTS credits:** 3**Assessment:** continuous assessment

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Svetlana Petrova Stefanova, MSc, PhD, Department of Computer Systems and Technologies

tel.: 082 / 888-356, e-mail: sstefanova@ecs.uni-ruse.bg**Annotation:**

The course aim is to make students acquainted with some basic terminology used in the investment process and more specifically in creating and managing an optimal assets portfolio. The character of this course is markedly applied. All the discussed examples and problems have their economics applications near the practice. Demonstrations with usage of software packages for simulating larger real models are provided.

Course content:

Risk and risk avoidance. Portfolio risk. Risk and no-risk assets. Division of capital between risk and no-risk assets. Diversification. Markovitz model for portfolio choice. Optimal risk portfolio. Portfolio managing. Portfolio efficiency evaluation. Choice of market moment. Hedging. International investments. Taking investment decisions. Restrictions of the client's portfolio managing.

Teaching and assessment:

The teaching process is realized through lectures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the practical examples.

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written**S02439 State Exam****ECTS credits:** 10**Assessment:** exam**Departments involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Consultants:

All lecturers from the Department of Applied Mathematics and Statistics

Abstract:

The state examination is held in front of the State Examination Commission in accordance with the approved syllabus, which includes main topics from all foundation courses.

The State examination includes tasks from the basic and specialized courses taught during the training: Linear Algebra and Geometry, Mathematical Analysis, Ordinary Differential Equations, Probability, Statistics, Econometrics, Introduction to financial mathematics, Insurance mathematics. The pre-diploma graduation project is developed on a freely chosen topic in the field of Mathematical Modeling and / or Statistics in Economics, Finance, Insurance, Social Work or other application areas.

Teaching and assessment:

The state exam comprises of two parts – a written part which involves the solving of problems and an oral examination where a presentation of an independently developed pre-diploma graduation project. The final evaluation of the state exam is formed as an average of the two parts, provided that on each of them the student has a higher or equal to the average of a fair mark (3.00). If necessary, the final evaluation is rounded according to the rules of mathematical rounding.

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:** written

**UNDERGRADUATE
STUDIES
IN
PRIMARY SCHOOL
EDUCATION WITH A
FOREIGN LANGUAGE**

PROFESSIONAL STANDARDS
OF A BACHELOR IN PRIMARY SCHOOL EDUCATION WITH A FOREIGN LANGUAGE

Degree Programme: **Primary School Education with a Foreign Language**

Educational Degree: **Bachelor**

Professional Qualification: **Primary School Teacher, Primary School Teacher in a Foreign Language**

Term of education: **4 years (8 terms)**

The main goal of the **Primary School Education with a Foreign Language** Bachelor degree is a specialised methodical training of future primary teachers, aimed at providing knowledge in psychology and pedagogy that reveals features of cognitive, emotional and physical development at ages 6-10; acquainting the students with the basis of technology of learning in varieties of specific scientific branches of knowledge, the linguistic features of mastering a foreign language at children's age and the relevant methods of learning; introducing modern informative and communicative technologies in teaching; familiarizing them with the special features and requirements of the European dimensions of education.

The quality of training of students doing the Primary School Education With a Foreign Language Bachelor degree is assured through:

- The use of modern laboratories and computer facilities;
- The availability of highly qualified academic staff;
- The courses included in the curriculum, which fall into the following categories:
 - **fundamental courses:** History of Pedagogy and Bulgarian Education, Philosophy, Literary Theory, Phonetics and Lexicology, Age pedagogy, Morphology and Syntax, Mathematics, Bulgarian History and some others.
 - **Core courses:** Theory of Education, Didactics, General Psychology, Basic Theory of Music, Introduction to Primary School Education, Pedagogical Communication, Basics of Natural Sciences and some others.
 - **highly specialised courses:** Optional Foreign Language - English, German, French, Methods of teaching a foreign Language to young children, Organising the work in preparatory groups and in preparatory classes, Basic Aspects of Visual Literacy, Musical Instrument, Methodology of Teaching Music, Theory and Methodology of Teaching of Fine Arts, Teaching and Learning Mathematics, English, and some others.

The Bachelor that has graduated in Primary School Education With a Foreign Language has to possess the following **knowledge and skills:** plan, organise and implement the teaching process at the primary school and auxiliary units; diagnose and estimate achievements or personal development of students; interact and cooperate with family, public and state institutions, non-governmental organisations, media and etc.; work in an intercultural environment and accomplish an intercultural dialogue; form and develop civil behavior of students; work for confirming equality of all children regardless of their religious and ethnic belonging or specific educational needs; use a foreign language.

The Bachelor in Primary School Education with a Foreign Language **can work as** an expert or manager in:

- primary teacher;
- primary teacher of a foreign language;
- pedagogic advisor;
- home teacher;
- director of different types of schools;
- other activities connected with a university degree.

**CURRICULUM
OF THE DEGREE COURSE IN
PRIMARY SCHOOL EDUCATION WITH A FOREIGN LANGUAGE**

(THE SECOND, THIRD AND FOURTH YEAR STUDENTS ARE TRAINED FOLLOWING THIS CURRICULUM)

First year

Code	First term	ECTS	Code	Second term	ECTS
SB14535	History of Pedagogy and Bulgarian Education	5	SB14552	Fundamentals of Visual Literacy	3
S00840	Didactics	5	S00076	English Grammar	2
SB14538	Inclusive Education	3	S01490	Introduction to Primary School Education	3
SB14536	General Psychology	3	S02022	Pedagogical Communication	2
S02398	General Linguistics	3	S02404	Literary Theory	3
S00430	Theory of Education	4	S02405	Phonetics and Lexicology	5
S02406	Basic Theory of Music	3	SB15200	Information and Communication Technologies and Work in Digital Environment	2
Elective courses (students elect a course)			Elective courses (students elect a course)		
S02399	English 1	5	S02407	English 2	8
S02400	German 1	5	S02408	German 2	8
S02401	French 1	5	S02409	French 2	8
			Elective courses (students elect a course)		
			S01979	Musical Instrument	1
			S01540	Pedagogy of Family Education	1
			S01509	Conflict Management and Resolution	1
			S01521	Group Training	1
			S01554	Development of Artistic Abilities with the Instruments of Music	1
			Elective courses (students elect a course)		
			S00134	Children Folklore	1
			S00669	Pedagogical Rhetoric	1
			S00881	Early Training in Reading and Writing	1
			S00986	Integrated Art Techniques for Children	1
			S01040	Coping with Disasters and First Aid	1
Total for the term:		30	Total for the term:		30
S00072	Sport	1	S00072	Sport	1

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
S01485	English Grammar	1	S03880	Theory and Methods of Teaching Mathematics	9
SB14555	Age Psychology	5	S03903	Lesson Observation (English Language Lessons)	2
S03868	Morphology and Syntax	5	S03884	Bulgarian History	3
SB14556	Mathematics – Part I and Part II	6	S03883	Foundations of Natural Sciences	3
S03870	Methods of Teaching Music	4	SB14636	Theory and Methods of Teaching Fine Arts in the Primary School	7
Elective courses (students elect a course)			Elective courses (students elect a course)		
S03920	English 3	8	SB11041	English 4	5
S03921	German 3	8	SB11042	German 4	5
S03922	French 3	8	SB11043	French 4	5
Elective courses (students elect a course)			Elective courses (students elect a course)		
S00582	Musical Instrument	1	S00598	Role Training	1
S03874	History of Bulgarian Education	1	S01216	Aesthetics	1
S03877	Pedagogical Ethics	1	S03930	Educative Work of Class Teachers	1
S00604	Philosophy for Children	1	S03929	Working with Children of Unequal Status	1
S00583	Interethnic Culture of Interaction in the Kindergarten and Primary School	1	SB14637	Modern Technologies of Educative Work in the Wholeday Organisation of the Education Process	1
Total for the term:		30	Total for the term:		30
S00072	Sport	2	S00072	Sport	2

Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
S03888	Methods of Teaching Man and Nature	3	S03896T	Theory and Methods of Teaching Sport and Physical Activity	6
S03944	Lesson Observation in Primary school	3	S03943	Teaching Practice	3
S03886	Methods of Teaching Bulgarian Language and Literature	9	S03897	Children's Literature	6
S03887	Methods of Teaching Man and Society	4	SB14643	Pedagogical Psychology	3
			SB14644	The Art of Speech and Performance	2
Elective courses (students elect a course)			Elective courses (students elect a course)		
S03932	Methods of Teaching English	7	SB14645	Linguistic Aspects of Acquisition of English by Young Learners	5
S03933	Methods of Teaching German	7	SB14646	Linguistic Aspects of of Acquisition of German by Young Learners	5
S03934	Methods of Teaching French	7	SB14647	Linguistic Aspects of of Acquisition of French by Young Learners	5

<i>Elective courses (students elect a course)</i>			<i>Elective courses (students elect a course)</i>		
S03935	English 5	3	S03949	English 6	2
S03936	German 5	3	S03950	German 6	2
S03937	French 5	3	S03951	French 6	2
<i>Elective courses (students elect a course)</i>			<i>Elective courses (students elect a course)</i>		
SB14638	Development of the Creative Abilities of Pre-school and Primary School Children	1	SB14581	Religion and Education	3
SB14639	Project-based Education in the Primary School	1	SB14580	History of the Ethnic and Religious Communities in Bulgaria	3
SB14640	Acquisition of Bulgarian Language by Bilingual Children	1	S00615	Principles of Christianity	3
SB14641	Pedagogy of Communication Skills	1	S00605	History of Music	3
SB14642	Intercultural Education and Socialization of Children from Different Ethnic Groups	1			
Total for the term:		30	Total for the term:		30
S00072	Sport	1	S00072	Sport	1

Fourth year

<i>Code</i>	<i>Seventh term</i>	<i>ECTS</i>	<i>Code</i>	<i>Eighth term</i>	<i>ECTS</i>
SB14582	Theory and Methods of Teaching Technology and Entrepreneurship	6	SB11061	Pre-Diploma Teaching Practice	11
SB10934	Pedagogical Diagnostics	3	S03914	Comparative Education	3
SB10935	Culture of Speech and Behaviour	4	S03915	Hygiene and Health Education	2
S03952	Foundations of Special Education	3	S01430	Self-Preparation for Graduation	4
SB14648	Classroom Management	3			
SB11048	Teaching Practice in English Language	2			
SB15201	Information and Communication Technologies and Work in Digital Environment	2			
<i>Elective courses (students elect a course)</i>			<i>Graduation</i>		
SB11050	English Children's Literature	3	S00534	State Written Exam in a Foreign Language	5
SB11051	German Children's Literature	3		Graduation – Students elect one of the two graduation procedures	
SB11052	French Children's Literature	3			
<i>Elective courses (students elect a course)</i>			S03919		State Written Exam in Pedagogy, Psychology and Methods of Instruction at Primary School
SB11053	English 7	3	S01486	Bachelor Thesis Defence in Pedagogy, Psychology and Methods of Instruction	5
SB11054	German 7	3			
SB11055	French 7	3			
<i>Elective courses (students elect a course)</i>					

SB14649	Reformation Pedagogy	1			
SB14650	Extracurricular Work in the Primary School	1			
SB11058	Fun and Tourist Games for Students from 1 st to 4 th Grade	1			
SB11059	English Communication Skills	1			
SB11060	British Studies	1			
Total for the term:		30		Total for the term:	30
S00072	Sport	1	S00072	Sport	1

Total for the course of study: 240 ECTS credits

SB14535 History of Pedagogy and Bulgarian Education**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The aim of the course is to familiarize students with the objective factors, conditions and tendencies in the development of pedagogical theory and practice during different historical periods and in different socio-economic conditions.

Course content:

The course covers topics related to the history and development of the most significant pedagogical ideas, theories, forms and means of teaching; systems of up-bringing and teaching from the pre-class society to present. There are topics dedicated to the life and work of eminent thinkers and pedagogues as Ian Amos Comenski, John Lock, Jean Jack Rousseau, J.H.Pestalozzi, C.D.Ushinski, A.S.Macarenco. The development of education and pedagogical thought in Bulgaria is also examined.

Teaching and assessment:

The lectures involve larger groups of students from the same degree programme and the seminars involve students from a particular group. During the seminars active methods of teaching are used, such as making tests, discussions and discussing each task. For homework assignment every student works on a task of his/her choice or on another topic. Only students who have prepared and submitted their course assignment according to the requirements can be admitted to the final exam. The final assessment is based on the results from the test that includes all the material studied, a written answer to a given question, and evaluation of the course assignment.

Weekly classes: 2lec+1sem+0labs+0ps+1ca**Type of exam:** written**S00840 Didactics****ECTS credits:** 5**Assessment:** exam**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

Didactics has an important role for the professional development of the students. The course aims to introduce future social pedagogues to the subject matter in a systematic way; reveal the most topical problems in the development of the Didactics; analyzes the procedural and functional character of education.

Course content:

Scientific Status of Didactics; Character of the Teaching Process; Principles of Teaching; Methods of Teaching; Systems of Organizing of the Teaching Process; Common Teaching Problems; Individualization and Differentiation of Education; Tutoring; Work with Disadvantaged and Gifted Students.

Teaching and assessment:

The course is taught by combination of lectures and seminars. At seminars the dialogic method is widely used; the course tasks on the topics included in the syllabus are discussed. Active participation is encouraged by awarding students additional points.

SB14538 Inclusive Education**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Yuliya Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The aim of the discipline is to understand and understand the philosophy, the whole process, the steps, the participants, their roles, the effectiveness and the good examples of interaction.

Course content:

Inclusive education is access to school, quality learning and guaranteed participation of absolutely all children. In order for this to happen, it is necessary for the general education institutions to be able to accept and meet the needs of not only the child with special needs but also every difference and not difference. Because inclusion does not only concern the education of children with disabilities, but quality education for all children.

Teaching and assessment:

The lecture course includes modules divided by hours. Students receive theoretical knowledge of the topics as well as practical experience by observing and commenting on good practices. The expected results are in the continuum of reach between all stakeholders in the process of inclusion. Inclusion and development of innovative practices in inclusive education, building and strengthening the capacity of learning communities to create an inclusive environment. The vision of how to organize training and mentoring on topics related to inclusive education, global education, child protection and child participation, policymaking and strategic documents in the field of education, information campaigns and inclusive education studies.

SB14536 General Psychology**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Course content:**

The aim of the course in General Psychology is to introduce students to the contemporary tendencies and advances in the study of human mental processes. The course examines such topics as subject matter and methods of study of Psychology; historical survey; current problems of the science, etc. Special attention is drawn to the personal and active approach in psychology, the structure of personality, self-regulative mechanisms, reflection and intercourse relations. It explores the special features of the psychic process, qualities and states of personality, the progress of the intellectual and the emotional part of one's character.

Teaching and assessment:

The course comprises of lectures and seminars. The lectures are designed to introduce students to new ideas and to provide a model for further analysis. At the seminars students are encouraged to participate in discussions.

S02398 General Linguistics**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The course aims at acquainting students with the main problems related to the nature of language, its form and functions, while at the same time it also highlights the theoretical platforms and methodological frameworks used by the different linguistic schools when defining and describing the different aspects of the language system and structure. The course covers topics related to the origin and the main stages of language development; the sign character of language, the link between language and speech, the relationship between language and thought and language and society; the system of language and the functions of each language element; classifications of languages; the link between language and the other non-linguistic systems.

Course content:

History of Linguistics; Nature and functions of language; Language and society; Language and thought and their correlation; Aspects and levels of study of language and speech; Processes and laws guiding language changes and development; Classification of languages: genealogical, morphological, etc; Languages on the Balkan Peninsula; International natural and artificial languages; Intralinguistics: Phonetics, Lexicology, Morphology, Syntax, Text linguistics, Stylistics; Extra Linguistics: Sociolinguistics, Psycholinguistics, etc.

Teaching and assessment:

The course content is delivered in the form of lectures. Students prepare and submit a seminal essay on a topic given by the course tutor at the start of the semester. The seminal essay has to be up to 10 pages. Students sit a written exam on a syllabus covering all the course topics.

S00430 Theory of Education**ECTS credits:** 4**Assessment:** exam**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The objective of the course is to present, in a systematic way, the problems of the theory of education as part of General Pedagogy. A starting point of teaching is to consider upbringing as a kind of social reality and a kind of intercourse relation as well as an object of the theory of education. The course accentuates on the models of up-bringing, on the specific conceptual apparatus of the subject and the up-bringing as a pedagogical activity and an active process with its complicated relations, contradictions and technologies.

Course content:

Character of upbringing as a socio-pedagogical phenomenon, its functions and structural components; Approaches, principles, methods, means, forms and factors for successful education; Relations between content and aim of the educational process, between preventive and re-educative activities,, prognosis and leading of educational process.

Teaching and assessment:

The lecture course comprises traditional and euristic ways of presenting new information. The seminar classes involve case studies and teacher-led discussions. Students should do reading before each seminar. The exam involves answering two questions with a different level of difficulty. The course task is been given through the third studing week from the term. They aer given at the end of the semester. They and their participation in work during the term are determining the receiving of counter sign. Their work in contentive meaning and their presentation at the exam are basing the final assessment.

S02406 Basic Theory of Music**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science
tel.: 0886 60 75 81, E-mail: yapovak@abv.bgPr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course of Basic Theory of Music aims at developing the main musical abilities in the students through different musical activities. It builds up a system of musical and theoretical knowledge, skills and habits of perception, comprehending and reproducing the musical means of expression. It also forms an aesthetic criteria and taste, musical and emotional response, knowledge and skills for creative and educational work with children.

Course content:

Special features of musical art. Musical means of expression; Major and minor tonality to 4 signs. Tempo and dynamics in music; Accords and transposing, main manual techniques: Elements of musical form.

Teaching and assessment:

Each seminar follows immediately after the lecture and thus creates a good bond between theory and its practical application. Tasks for independent work are given, which aim at mastering the main theoretical questions.

Three one-hour tests are administered during the seminars. The final grade is an average from the three test grades.

S02399 English 1**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bgSenior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages
tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bgSenior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages
tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Abstract:**

At this level students have some knowledge of the main grammatical areas of the English language but they are frequently unable to use what they know appropriately, accurately and confidently as they come from a variety of learning backgrounds. The basic aim of the course is to establish the entry level of students within a group, to consolidate the group as a team and to ensure that by the end of the semester the majority have reached level A2 according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and grammar skills.

Course content:

The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques, such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, two essays and two written tests.

S02400 German 1**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergei Vassilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The basic aim of the course is to establish the entry level of students within a group, to consolidate the group as a team and to ensure that by the end of the semester the majority have reached level A2 according to the European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and listening.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, one composition, two written tests and a course assignment requiring students to read and retell a children's story or tale, expressing their own opinion.

Weekly classes: 0lec+0sem+0labs+4ps**Type of exam:****S02401 French 1****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: rivanova@uni-ruse.bg**Abstract:**

The basic aim of the course is to establish the entry level of students within a group, to consolidate the group as a team and to ensure that by the end of the semester the majority have reached level A2 according to the European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and listening.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, one composition, two written tests and a course assignment requiring students to read and retell children's story or tale, expressing their own opinion.

Weekly classes: 0lec+0sem+0labs+4ps**Type of exam:**

SB14552 Fundamentals of Visual Literacy**ECTS credits:** 3**Weekly classes:** 0l+2sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Abstract:

The course aims at introducing students to basic terms and providing them with fundamental knowledge on the theory of Fine Art as well as on the general characteristics and classification of arts. Among the topics discussed are: the different types of art and art genres, genre varieties and specific means of expression, the synthesis between arts and the synthetic arts. The seminars attempt to improve students' skills for working with graphic, painting and fictile material.

Course content:

Nature of Fine arts. Types of Fine Arts. Painting – Types and Specific Features. Sculpture – Types, Genres and Materials. Graphics – Types of Printing. Materials and Techniques. Decorative and Applied Arts – Types. Stylistic Devices and Means of Expression. Composition – Types and Means of Expression. Colour in the Fine arts – Types. Problems with the Shape Outlining in Arts. Colour Awareness. Perspective. Plastic Anatomy.

Teaching and assessment:

The course is delivered in the form of practical classes. At the end of each seminar is organized a short discussion with the participation of the students. When validating the course the tutor takes into consideration the participation of students in the discussions. The progress of the students is assessed by a test based on the course syllabus.

S00076 English Grammar**ECTS credits:** 2**Weekly classes:** 1lec+0sem+0labs+0ps+ca**Assessment:****Type of exam:****Department involved:**

Department of Bulgarian Language, Literature and Arts
Faculty of Natural Science and Education

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Abstract:

The course *English Grammar* helps students to acquire two of the basic structural levels of the English language – Phonetics and Lexicology. The course topics are in accordance with the overall training of the students and their future professional career as primary school teachers of English.

Course content:

The course content aims at developing students' knowledge on the nature and specific characteristics of English pronunciation on segment and suprasegment level, the articulatory and acoustic features of the vocal and consonants system of English, the phonotactics and its application in the definition of the syllable, stress, intonation and speech frames. Students get theoretical input on the: basic semantic relations of words (e.g. synonymy, antonymy, polysemy, homonymy, paronymy), origin of English words, word formation patterns, phraseological units and fixed phrases, etymological sources in contemporary English language, sources for enrichment of the phraseological fund.

Teaching and assessment:

The course content is delivered in the form of lectures. Each lecture is followed by a set of questions, which involve students in self-directed learning, and which are aimed at developing students' practical skills on topics included in the lectures. Each lecture starts with a short discussion of students' contributions on the questions from the previous lecture. Thus, a link between the previously acquired and the new knowledge is established.

S01490 Introduction to Primary School Education**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 219, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The course examines the characteristic features of the teaching and learning processes in primary schools and seeks to reveal the particular place of Primary School Education in the general system of pedagogical sciences. Students should acquire knowledge about the nature and tasks of primary school education and gain appreciation of the practical demands within the vocation.

Course content:

Scientific status of pedagogy; Primary School Education in the system of pedagogical sciences; Methods of scientific and pedagogical research; Bulgarian system of education; History of the primary school education around the world and in Bulgaria; State and tendencies in the development of primary education.

Teaching and assessment:

The specific character of the topics determines the very direction of the lecture course towards the general problems of pedagogy and their specific reflection in the primary school education. At seminars students should prepare summaries on the main problems and questions associated with the topics from the syllabus. The course is evaluated through a formal exam that implies answering a question in writing.

Weekly classes: 2lec+0sem+0labs+0ps+se**Type of exam:** written**S02022 Pedagogical Communication****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 219, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The basic objectives and tasks of the research seminar are directed towards providing students with basic notions about the democratisation and humanising of the pedagogical process, which presupposes an active pedagogical interaction between teachers and pupils and the creation of a sense of equality between them. Hence, the future teachers should become aware of the elements of the pedagogical communication and acquire knowledge and skills for a meaningful and effective interaction with the children.

Course content:

The Social Nature of Communication. Communication as a Factor for Personality Development. Nature and Issues of Pedagogical Communication. Dialogical Nature of Communication. Functions of Communication in Education. Main Types of Communication. Organization and Management of the Interaction of Pupils in during Team Work. Characteristics of the Verbal and Non-verbal Communication of the Teacher. Characteristics of the Communication of Children of Different Ages.

Teaching and assessment:

The course has a practical and research orientation that underlies the structure of the lectures and the exam procedure. Students are acquainted with multiple examples and facts from the school practice and the work of notable researchers from Bulgaria and the world.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

S02404 Literary Theory**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps+se**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The subject matter of the course in Literary Theory is of a general character. The course aims at enhancing the reading competence of students and their appreciation of literature as an art of speech and a specific social system; building up the students' skills for perception, analysis and interpretation of the literary facts and phenomena with an emphasis on the specific features of literary communication. The course has initial connections with the courses Children's Literature and Methods of Teaching Bulgarian Language and Literature.

Course content:

Inception, perception and features of the literary text; Structure of the literary text; Composition of the literary work; Genre, genre classification, and peculiarity of a work of literature; Features of the lyrical work; Semantics of the literary work; Language and style of fiction; Basic aesthetic patterns of the literary understanding of reality; Analysis and interpretation of the literary text.

Teaching and assessment:

The course is taught by lectures. Students prepare a course assignment on a paper. Two tests are given on the material studied. The final grade is formed after written exam.

S02405 Phonetics and Lexicology**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg**Abstract:**

The course aims at introducing students to:

- 1) the science of speech, which integrates knowledge about the physiological processes of the production and perception of speech, the acoustic and articulation features of verbal sounds and the super-segmental organisation of speech.
- 2) the science of the lexical system of the Bulgarian language - gnoseologic, semiological and semantic features of the lexical units, their use in the different styles of speech;
- 3) methods and means of phonetic and lexical analysis.

Course content:

Object of Study and Tasks of Phonetics and Lexicology. Acoustic, Articulatory and Functional Aspects of the Sound. Segmental and Supersegmental System of Modern Bulgarian Language. Nature and Characteristics of the Word as a Linguistic Sign. Semantic Variety of the Word. Systematic Lexical Relations. Characteristics of the Bulgarian Vocabulary. Structure, Classification and Characteristics of Set Phrases. Subject and Tasks of Bulgarian Lexicography.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Two continuous assessment tests are administered during the term. The final exam is written.

**SB15200 Information and Communication Technologies in Education
and Work in Digital Environment**

ECTS credits: 2**Assessment:** preliminary exam**Department involved:**

Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Valentina Voinohovska, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bg

Pr. Assist. Prof. Desislava Tsoneva Baeva MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: dbaeva@ami.uni-ruse.bg

Abstract:

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications.

Spread sheets: Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering.

Presentations: New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

S02407 English 2

ECTS credits: 8**Assessment:** continuous assessment**Departments involved:**

Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages
tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages
tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg

Abstract: The basic aim of the course is to improve the level of students from A2 towards A2+ according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking, grammar skills and listening.

Course content: The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes. Students are encouraged to bring their own materials. An important topic – children and their world – is added to the above.

Teaching and assessment: Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, three essays and two written tests.

S02408 German 2**ECTS credits:** 8**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Sergei Vassilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from A2 towards B1 according to the European framework. The teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and reading.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, children and their world – is added to the above.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework, two compositions, two written tests and a course paper requiring students to read and retell an adapted modern novel (level 4) expressing their own opinion about a favourite character.

Weekly classes: 0lec+0sem+0labs+6ps**Type of exam:** written and oral**S02409 French 2****ECTS credits:** 8**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: rivanova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from A2 towards B1 according to the European framework. The teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and reading.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, children and their world – is added to the above.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework, two compositions, two written tests and a course paper requiring students to read and retell an adapted modern novel (level 4) expressing their own opinion about a favourite character.

Weekly classes: 0lec+0sem+0labs+6ps**Type of exam:** written and oral

S01979 Musical Instrument**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,
tel.: + 359 82/ 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The classes in accordion aim at preparing students for using the instrument during musical classes at the primary school. They are designed to give the needed minimum of knowledge and skills for playing songs, folk dancing pieces, children musical pieces which are included in the repertoire at schools. The instruction in the musical instrument assists the work with solfeggio too, elementary theory of music and all other branches of music, studied by students.

Course content:

Structure and parts of an piano of the left and right hand. Exercises in different note durations. Scales until 2 signs- major and minor. Playing on melodies with an accompaniment. Specifics of the minor tones. Minor tones with two signs – natural, harmonic and melodic kind. Transportation and exercises for pre-singing. Technical exercises on semiquavers. Rhythmic figures on the bases of semiquavers. Rhythmical beats- 3/8 and 6/8. Irregular beats – 5/8, 7/8, 8/8, 9/8. Learning art repertoire. Playing in group.

Teaching and assessment:

The instruction is individual. In the classes the lector gives theoretical and methodical directions for the material which have been learned. The classes also involve individual study and practice at home, which facilitate the complete mastering of the knowledge acquired during classes.

Weekly classes: 0lec+0sem+0labs+1ps**Type of exam:** practical**S01540 Pedagogy of Family Education****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

Teaching is done by using traditional, heuristic and game methods. By analysing extracts from films and books or by participating in improvised family games students, receive an opportunity to get into the problems of family relations. Thus, we aim at stimulating their feelings, activating their imagination and strengthening their heuristic orientation. The cognitive method of acquiring knowledge has a primary importance throughout the course.

Course content:

Students completing this unit will be able to interpret critically data and information concerning family relations. They will gain an insight into the latest achievements of family therapy, which should stimulate them to think analytically about family problems. Last but not least, they are motivated to develop positive attitudes and conceptions and to work towards developing normal relations in the family.

Teaching and assessment:

The continuous assessment involves students writing an essay on a topic included in the syllabus. They are expected to approach the problem in a creative and original way without reproducing memorized constructions.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

S01509 Conflict Management and Resolution**ECTS credits:** 1**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Science and Education;**Lectures:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The purpose of the course is students to assimilate systematic knowledge about the conflict as a phenomenon and also to be introduced to the today's methods about its avoidance and solution. This knowledge will let the students acquire new knowledge about the conflict as an universal process as well as give meaning to the knowledge acquired though the whole master's course from the point of view of this science and use it in practice, too.

Course content:

The main themes, included in the contents are: Conflict as a psychological concept; Dialectical theory about conflict; Diagnostics of conflict; Types of conflicts; Development of conflict; Styles of conflict behavior – strategies and methods; Running of conflict; Solution of conflict; Pyramid of conflict; Principles of avoidance of conflict; Technology for controlling of conflicts in pedagogical interaction; Building models of pedagogical conflict situations.

Teaching and assessment:

The continuous assessment includes a test which covers questions from all studied topics.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**S01521 Group Training****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

This course aims at acquainting the students with the basic models and strategies of pedagogical interaction and setting up an ability for communication at certain levels of pedagogical work.

Course content:

Information-psychological aspects of communication in pedagogical process. Characteristics. Pedagogical content of communicative instruments. Speech and communicative behaviour. Dimensions of teacher's profession. Characteristics and interactive education. Techniques for organization of the interaction in class. Approaches of setting up personal and social skills in students. Basic social skills.

Teaching and assessment:

Students get acquainted with the theoretical and practical foundations for developing social and personal skills characteristic of the teacher's profession. Students work in groups. Interactive methods are used to set up ideas and skills for productive pedagogical interaction. The course ends with the submission of a paper (based on one of the topics given above).

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

S01554 Development of Artistic Abilities with the Instruments of Music**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science
tel.: 0886 60 75 81, E-mail: yapovak@abv.bgPr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course aims at developing and enriching the creativity of students with the help of the means of music through the use of contemporary works and research papers on similar topics. It covers a wide range of topics that focus on the main theoretical issues and enrich the context of the problems discussed in areas such as musical psychology, psychophysiology, perception and influence of music, sound and musical expressions, communicative potential of the sound and music and a syncretic approach in the musical and creative thinking.

Course content:

Music as Universal Language for Communication. Methodological System of Music Education. Analysis and Discussion of Different Types of Music in Relation to their Educational Effect. Music and the Art of Speaking. Multi-aspectual Influence of Music. The Relation between Sound, Colour and Speech. Musical and Artistic Approaches for Working with a Literary Text. Social and Esthetic Functions of Dance. The Folklore Dances. Musical Instruments as Non-verbal Means of Communication. Child Musical Genres as a Stimulus for Developing Children's Creative Potential.

Teaching and assessment:

The course is delivered in the form of lectures which cover nine topics that aim at presenting theoretical knowledge to students and increasing their practical training for developing children's potential for creativity through the means of music.

The course is based on continuous assessment and the final mark is formed on the basis of two tests.

S00134 Children's Folklore**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E- mail: doneva_v@uni-ruse.bg

Course description: The course aims at providing the future teachers with the necessary knowledge about the specific features of Bulgarian folklore. The course introduces students to the foundations of Bulgarian culture and its spiritual aspects. It focuses on the problems, aims and tasks of Folklore studies, the prominent figures in the field and its relations to other sciences – e.g. Literature, Social and Cultural Anthropology, Didactics, Sociology, etc. It examines all branches of Bulgarian folklore, the resources and their interpretation, and the collectors. The course also traces back the development of Children's Folklore in the process of national self-awareness and tackles its present-day implications. It explores children's folklore genres and provides an opportunity for their field research.

Course content: Bulgarian Mythology. Contemporary Problems of Bulgarian Children Folklore. Raising Children's Awareness of the Folklore Traditions. Origin and Development of the Folklore Studies. Historic Sources of Bulgarian Folklore. General Characteristics and Poetic Features of Folklore. Classification Systems. The Bulgarian Folklore Studies in the Period of the Revival – the Contribution of Venelin, Rakovski, Bratia Miladinovi. The Bulgarian Folklore after the Liberation. Folklore Calendar. Folklore Traditions and Celebrations. Family Traditions. Children Folklore – Genres, Origin, Development and Classification. Christmas Rituals. Participation of Children in the Rituals. Spring Festivities – Rituals, Songs. Omens, Proverbs and Riddles and Anecdotes. Stories. Characteristic Features of the Genre. Games for Children. Field Research Methods. Family Tree.

Teaching and assessment: The course of lectures includes discussions or presentation of the topics. Students have to note down or record folk tales, songs, etc. from their home region. This rich collection of their recordings will allow for the development of a detailed children folklore map of Ruse and the region. The final mark is formed on the basis of students' active participation in the classroom during the discussions and the quality of the produced assignments.

S00669 Pedagogical Rhetoric**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E- mail: doneva_v@uni-ruse.bg**Abstract:**

The curriculum of Pedagogical rhetoric is designed for students of Bachelor program "Primary School Pedagogy with a Foreign Language" studied in University of Ruse. It contains a lecture course.

Course content:

More important topics: Historical and theoretical foundations of rhetoric; Oratory style; Rhetorical figures and tropes; Verbal and non-verbal communication in pedagogical communication; Methods and techniques of communication; Speech culture and techniques.

Education methods:

Rhetoric education is organized in lectures. Active forms of training are not provided. The most actively used forms and methods of learning are talk, analysis and interpretation, mental attack, speaking and listening, rhetorical persuasion.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**S00881 Early Training in Reading and Writing****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The aim of the course is to introduce students to the main methods, forms and methods of early training in reading and writing, intended for pre-school children. It is the basis for the further study of the methods of literacy in Bulgarian language and literature teaching methodology. By mastering traditional and innovative pedagogical technologies, students acquire skills in reading and writing instruction of six-year-old children.

Course content:Theoretical formulations of early reading and writing instruction. Methods, forms and techniques for literacy training. Age characteristics of the literacy mastering by six-year-old children. Innovation and traditions in reading and writing instructional methods. Reading Training System. Forming skills for correct reading. Synthetic Reading Techniques. Writing training system. Early Reading and Writing Training and *Step by Step* Program.**Teaching and assessment:**

During the lectures, students are introduced to a variety of methods, forms and techniques for early reading and writing instruction of six-year-old children. They are presented different algorithms of pedagogical technologies. The requirement for semester validation is regular attendance at the lectures.

S00986 Integrated Art Techniques for Children**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Prof. Mariana Mincheva Garmidolova, MA, PhD, D. Art, Dept. of Graphic Design and Visual Communications,
"St. Cyril and St. Methodius" University of Veliko TarnovoPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The course aims to develop students' knowledge about the non-traditional and alternative art techniques and their links with the other school subjects, especially with those school subjects that belong to the aesthetic cycle of disciplines. The course seeks to deepen the practical skills of the students, as well as increase their competences for applying such innovative techniques in the classroom that are specific within the system of artistic and aesthetic education and for the development of children's creativity. Special attention is given to the significant role of those competences in the development of learners' personality, active participation in the classroom, creativity and value system.

Course content:

The course of lectures covers topics such as: theoretical foundations of the integration of knowledge in the teaching and learning process; the integration of knowledge as a problem in present-day pedagogical system; the school curricula as a basis for the implementation of the integrative component in the school subjects of the aesthetic cycles and their specific features; methodological approaches in the actual teaching of an integrated arts lesson.

Teaching and assessment: The course content is delivered in the form of lectures which are supplemented with the use of visual materials such as posters, reproductions of works of art and multi-media presentations. The course attempts to provoke the active participation of students who have to present their own interpretations of the problems discussed. After the completion of each group or individual task students are given a mark. The final mark is formed as the average of all marks received on the practical tasks.

S01040 Coping with Disasters and First Aid**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Industrial Management
Faculty of Public Health and Healthcare**Lecturers:****Assos. Prof. Teodora Nedeva Sherbanova, MD, PhD, Department of Health Care**tel.: 082 / 888 410, E-mail: tsherbanova@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: ilieva@uni-ruse.bg**Abstract:**

The course focuses on the specific problems concerning emergencies. All of them are life threatening situations. This makes an important need in terms of the clinical, therapeutic and organizational problems to be discussed with students. The aim of the course is to develop students' knowledge and skills for adequate and competent actions in cases of emergency.

Course content: General Characteristics of Disasters. Classification. Organization of the Medical Insurance of People In Emergency Situations. Social and Psychological Problems in Emergency Situations. Accidents – Classification and Behaviour during Accidents. Acute Poisoning from Various Agents – Classes of Agents, Behaviour. Ionising Radiation – Biological Action, Acute Radiation Syndromes – Classification and Behaviour. First Aid – Definition, Needs and Tasks. Road Traffic Accidents – Ensuring Safety, the Need for Giving First Aid, Algorithm of Behaviour. First Aid in Case of Drowning. First Aid in Case of Allergic Reactions. First Aid for Acute Conditions in Childhood. First Aid in Case of Injuries.

Teaching and assessment: The teaching is done basically through lectures. Lectures present the theoretical basis of the subject matter and are accompanied by appropriate examples. They are held in a lecture hall where modern methods of presentations – multimedia, case studies and discussions are used. The use of educational films and special medical equipment is also possible. Particular attention is paid to the clarification of the enormous need for a quick and adequate response in emergency situations that threaten human life. The final grade is based on a written examination during and after the lectures.

S01485 English Grammar**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The course *English Grammar* aims at developing students' knowledge in the field of morphology and syntax of Modern English. It presents to students the basic grammatical features of the English language and introduces them to the basic theoretical platforms in contemporary morphology and syntax.

Course content:

Morphology as a science for the structure of the word and its grammatical categories. Parts of speech and grammatical categories. Nominal categories: the noun, the adjective. The adverb. The Numerical. The Pronoun. The Preposition. The Verb. Basic grammatical categories of the English verb: aspect, tense, mood, voice, person and number. Valency of the verb. The Temporal System.

Syntax as a science. The Sentence. Sentence constituents. The Subject. The Predicate. Secondary parts of the sentence. The Complex sentence. Types of Complex Sentences.

Teaching and assessment:

The course content is delivered in the form of lectures. Each lecture is followed by a set of questions, which involve students in self-directed learning, and which are aimed at developing students' practical skills on topics included in the lectures. Each lecture starts with a short discussion of students' contributions on the questions from the previous lecture. Thus, a link between the previously acquired and the new knowledge is established. Students do two tests with a specific thematic focus. The first test focuses on the specifics of English morphology, while the second – the specifics of English syntax. The final mark is a subtotal of the marks on the tests.

SB14555 Age Psychology**ECTS credits:** 5**Assessment:** exam**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Abstract:**

The course aims to introduce the future social workers to the peculiarities and regularities concerning the development of individuals from childhood and adolescence.

Course content:

The course contains the following basic components: A theoretical part, which focuses on the mental processes, features and states of children's personality; an experimental part that explores the methods and techniques of observation and processing of data collected during psycho- diagnosis tests. The accent is upon the problems of development of children psychic.

Teaching and assessment:

The technology of teaching reflects the objective of the course to introduce students to the methods of working with and handling verbal, figural and pictorial tests for psycho-diagnosis of children of primary school age. The lectures are problem-oriented and have a discussion character.

S03868 Morphology and Syntax**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: pometkova@uni-ruse.bgAssist. Prof. Niya Atanasova Peneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082/ 888 664, E-mail: ndoneva@uni-ruse.bg**Abstract:**

Grammar, with its two branches - Morphology and Syntax, is the science about language. Morphology studies the structure and grammatical meaning of words. Syntax is the science about the structure of coherent speech. There is a special emphasis on the significance of syntax for the mastering of punctuation. Its connection with intonation helps students develop correct, accurate and expressive speech.

Course content:

Definition of the term "word" as the subject of morphology; Parts of speech. Subject matter of Syntax; Combination of words, Classification of simple sentences; Main parts of the simple sentence; Subject; Predicate; Secondary parts of two-compounded sentences; Object; Adverbial modifiers; Definition; Apposition; The attribute; Syntactic realisations of the parts of speech; Parenthetical syntax units; Complex sentences; Complex composed sentence - types; Complex compound sentences - types; Multicomponent complex sentences.

Teaching and assessment:

The course is taught through a combination of lectures and seminars. The students write a research paper on a topical question of Bulgarian grammar. At the end of the semester there is a written exam, which includes also a practical part.

Weekly classes: 2lec+1sem+0labs+0ps+5se**Type of exam:** written**SB14556 Mathematics – Part 1 and Part 2****ECTS credits:** 6**Assessment:** exam**Methodical department:**Department of Mathematics
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 848, E-mail: velikova@uni-ruse.bgAssoc. Prof. Milena Panova Kostova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 453, E-mail: mpk@uni-ruse.bg**Abstract:** The purpose of the course is the students to acquire knowledge about natural numbers, the actions with them and their properties; to learn main concepts of mathematical logic, set theory, images and relations. Also to update and systematize the knowledge about: rational and real numbers; algebraic expressions, equations and inequalities of the first degree with one unknown; the elements of Euclidean geometry. To acquire knowledge on the basic elements of linear algebra, analytic geometry in the plane, calculus, combinatorics and probability theory.**Course content:**

Set theory – sets and actions with them. Cartesian product, relations, images. Mathematical logic - propositional calculus, rules for deduction, predicate calculus. Natural numbers - divisibility, divisibility signs. Method of complete mathematical induction. Notations. Rational numbers. Algebraic expressions, equations and inequalities of the first degree with one unknown. Determinants of II and III order. Systems of linear equations. Axiomatic development of geometry. Vectors. Key elements of plane analytic geometry and calculus. Combinatorics. Basic concepts of probability theory.

Teaching and assessment:

The lectures give the opportunity of the students to learn the theoretical basics in mathematics for the begging course of education and also to gain extra knowledge in elements in linear algebra, analytic geometry in a plane, mathematical analysis, combinatorics and probability theory. Theory lectures are presented with proof material, supported by examples and problems. At the seminars are acquired skills for solving problems on the topic. Two tests are foreseen. The forming of the final mark is described in the program. Attendance at all seminars is a must for attestation of the semester.

S03870 Methods of Teaching Music**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sevdalina Ilieva Dimitrova, Dept. of Education Sciences, Department of Information, Qualification and Lifelong Learning – Varna

tel.: 052 / 301 241, ext. 128, E-mail: sevdalina.dimitrova1@gmail.com

Pr. Assist. Prof. Petya Ivanova Stefanova, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course aims at making students aware of the theoretical and methodological bases of musical education, revealing the pedagogical and psychological activities directed towards the development of artistic-musical abilities, and forming positive habits and creative approaches to organising musical activities in a way understandable to pupils in primary school age. The course also deals with the methodological bases of the aesthetic musical education in the Bulgarian school and the methods, forms and means of instruction in music.

Course content:

The course covers topics that show the psychological foundations of musical education, the theoretical aspects and characterisation of musical abilities. It explores issues related to the formation and development of musical abilities in children. Students are acquainted with the nature, significance, tasks and methods of the different musical activities.

Teaching and assessment:

The topics of the lectures acquaint the students with the theoretical foundations of the course. The semester is considered validated if the classes have been attended regularly and if the students have participated actively in the educational process. The exam is written and involves answering the given questions in detail.

S00582 Musical Instrument**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sevdalina Ilieva Dimitrova, Dept. of Education Sciences, Department of Information, Qualification and Lifelong Learning – Varna

tel.: 052 / 301 241, ext. 128, E-mail: sevdalina.dimitrova1@gmail.com

Pr. Assist. Prof. Petya Ivanova Stefanova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082/ 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The classes in accordion aim at preparing students for using the instrument during musical classes at the primary school. They are designed to give the needed minimum of knowledge and skills for playing songs, folk dancing pieces, children musical pieces which are included in the repertoire at schools. The instruction in the musical instrument assists the work with solfeggio too, elementary theory of music and all other branches of music, studied by students.

Course content:

Structure and parts of an piano of the left and right hand. Exercises in different note durations. Scales until 2 signs- major and minor. Playing on melodies with an accompaniment. Specifics of the minor tones. Minor tones with two signs – natural, harmonic and melodic kind. Transportation and exercises for pre-singing. Technical exercises on semiquavers. Rhythmic figures on the bases of semiquavers. Rhythmical beats- 3/8 and 6/8. Irregular beats – 5/8, 7/8, 8/8, 9/8. Learning art repertoire. Playing in group.

Teaching and assessment:

The instruction is individual. In the classes the lector gives theoretical and methodical directions for the material which have been learned. The classes also involve individual study and practice at home, which facilitate the complete mastering of the knowledge acquired during classes.

S03874 Children's Rights**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 1lec+0sem+0labs+0ps**Type of exam:** written**S03877 Pedagogical Ethics****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

Given the strategic location of ethics in science and its practical sense the goals of the course are defined as follows: to provide knowledge related to basic ethical concepts in a way helps their comprehension of axiological point of view and their practical significance, to determine starting positions and objectives of employees within the moral life ; create psychological guidance and embed basic knowledge to build a good working life oriented conditions for success , to provide alternatives to self-knowledge , self-development, self-improvement and building community united around care promoting moral values and behaviour.

Course content:

Nature and Origin of Morals. Purpose and Objectives of Ethical Science. Categorical Aid. Specificity of Ethics Given Professional Activity.

Teaching and assessment:

The course is taught in the form of lectures. During the course students are provided with examples and models related to non-traditional learning in the form of trainings and games which include interactive methods. Students are given tasks for individual work which cover the topics discussed at the lectures. Depending on their personal preferences and on the references given students could choose a topic for their individual work. The course tutor approves the topics and the ready assignments are evaluated on the basis of approved criteria.

S00604 Philosophy for Children**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: yvasileva@uni-ruse.bg

Pr. Assist. Prof. Magdalena Stoyanova Jeliaskova, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: mzheliaskova@abv.bg**Abstract:**

The aim of the lectures is to introduce children to the basic philosophical categories in a fun and accessible way for children . The program covers pre-school, primary school, which meets the Bulgarian education preschool students and 1 to 4 in class. Philosophical categories are represented by funny text - stories pixie girl who shares their stories and present argument. Based on these considerations, children are offered a conversation in which questions are asked by both the teacher and the children themselves. The course helps students develop - regardless of their specialty, criteria for the formation of independent thinking in children and helps them to increase their personal philosophical culture.

Course content:

The course includes a systematic examination of situations in daily life that when enhancing reasoning , mainly by asking questions by leading children to stiugat philosophical summarized that fail to articulate in their own way . Speak vaznimnalite problems and find explanations lead to zdalbochavanv thinking and preserve the ability to ask questions and we later age.

Teaching and assessment:

Continuous assessment involves students answering 2 questions in writing. The semester is validated only if classes have been attended regularly

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**S00583 Interethnic Culture of Interaction kindergarten and primary school****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The curriculum initiates the theories of differences among the cultures in the world. It expresses in specific form the special features of working with different ethnic groups and cultures in our country and ways of interaction between them.

Course content:

Basic knowledge is orientated towards defining specific terms and going through the basic theories of cultural differentiation. Specific techniques are examined for the purposes of working in ethno – cultural environment.

Teaching and assessment:

The mode of education is traditional conducting of lectures, accompanied by multimedia presentations, upon which discussions are organised, as well as solving problems. Materials for conversed connection are used with the students. The paper's topic is to be selected from suggested topics. Literature and references are given. The form of control is semester grade.

S03920 English 3**ECTS credits:** 8**Weekly classes:** 1lec+0sem+0labs+6ps+ca**Assessment:****Type of exam:****Departments involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from A2+ to B1 according to the European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and listening.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes, the children's world, Primary School in Britain and Bulgaria.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, three compositions, two written tests and a course paper, requiring students to give a presentation on a material from English children's literature. The semester is validated.

S03921 German 3**ECTS credits:** 8**Weekly classes:** 0lec+0sem+0labs+6ps+ca**Assessment:****Type of exam:** written and oral**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergei Vassilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students to B1 according to the European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and writing.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, the children's world, Primary School in Britain and Bulgaria.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, two compositions – a narrative and an article, two written tests and a course paper, requiring students to research a topic and give a presentation.

S03922 French 3**ECTS credits:** 8**Assessment:****Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: rivanova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students to B1 according to the European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and writing.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, the children's world, Primary School in Britain and Bulgaria.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis, two compositions – a narrative and an article, two written tests and a course paper, requiring students to research a topic and give a presentation.

Weekly classes: 0lec+0sem+0labs+6ps+ca**Type of exam:** written and oral**S03880 Methods of Teaching Mathematics****ECTS credits:** 9**Assessment:** exam**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The objective of the course is to introduce students to the principles of mathematical education in the Primary school and to form abilities for presenting, practising and systematizing mathematical information and knowledge. Students are acquainted with the objectives and tasks of mathematical education; they are taught skills to develop lesson plans and present the material in the three main mathematical branches – Arithmetic, Algebra and Geometry thus getting an understanding about the role of Mathematics in the development of mental skills.

Course content:

Subject, goals and tasks. Planning. Didactic foundations. Principles and methods. Methods for teaching notions about one-digit, two-digit, three-digit and poly-digit numbers and operations with them. Mathematical problems with text conditions. Ways for fast verbal arithmetic. Teaching Algebra. Geometrical knowledge. Introduction of the pupils to measure units for length, weight, capacity and time.

Teaching and assessment:

The course is taught through a combination of lectures and seminars. Seminars are designed to complement and reinforce the notions introduced at lectures; class work involves discussions, doing tests, devising lesson plans, analysing and discussing lessons, analysing of school documentation.

Weekly classes: 2lec+2sem+0labs+2ps+cw**Type of exam:** written

S03903 Lesson Observation (English Language Lessons)**ECTS credits:** 2**Weekly classes:** 0lec+0sem+0labs+2ps**Assessment:** preliminary exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The training of students for the qualification “primary school teacher of English” is based on the combination of theoretical knowledge with the acquisition of practical skills in the real classroom. In relation to this lesson observation aims to introduce students to the direct educational practice in schools through the observation of lessons delivered by mentor teachers of English. Simultaneously to this are developed students’ basic skills for analysis and evaluation of the process of teaching and learning a foreign language.

Course content:

The lessons observed in English present the ways in which: a) the four skills (listening, speaking, reading and writing) are developed in the primary school English language lesson; b) grammar and vocabulary are taught and reinforced; c) development of learners’ sociocultural competence. Students pay attention to the: stages of the English language lesson; the interaction patterns in the English language lesson; the teacher talk – giving instructions, checking understanding, eliciting; error correction and giving feedback.

Teaching and assessment:

Students are divided in groups of 10 and observe English language lessons taught by mentors at selected lower secondary schools. The students write down the lesson plan. The observed lessons for the day are discussed after the observation. All students and the university methodologist participate in the discussion

S03884 History of Bulgaria**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps+se**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bgPr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

This course aims at introducing the students to the main periods in the historical development of Bulgaria from the establishment of the Bulgarian state in 681 to 1918. Students completing this unit will be well prepared for the work with children of primary school age.

Course content:

Introduction. Thracians, Slavs, Proto - Bulgarians. Establishment and acknowledgment of the Bulgarian state. Expanding the state territory. Spiritual and political progress- conversion of the Bulgarian people to Christianity, literary and cultural progress. The Bulgarian lands under Byzantine rule. The uprising of Asen and Peter. Kaloyan- international acknowledgment. Ivan-Asen II. The uprising of Ivailo. The Terters and The Shishmans dynasties. Bulgaria under Ottoman Rule. Bulgarian Revival. The April Uprising and the Liberation of Bulgaria. Creators of new Bulgaria. Stefan Stambolov - a period of Bulgarian nationalism. Consolidation and declaration of the Bulgarian independence. The Balkan Wars.

Teaching and assessment:

The course is taught through lectures. The semester is considered validated if students have attended classes regularly. The exam is written. When the final grade is formed the mark on the seminal essay is also taken into consideration.

S03883 Foundations of Natural Sciences**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps+se**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course's aim is to provide students with a system of knowledge about Natural Sciences which is necessary for the future primary teachers who will teach "Man and Nature" and "Household Maintenance Skills and Techniques".

The lectures in this course are structured on the basic Natural Sciences concepts – forces, movement, energy, substances and materials. The content of every concept is presented integrally – as knowledge about life sciences and about inanimate nature. Thus the lectures correspond to the integral character of the subject "Man and Nature" which the students are preparing to teach at school.

Course content:

History and Methodology of Natural Sciences; Time and space in Natural Sciences; Material structures in the Universe and their hierarchy – from the atom to the Universe; Movement and Energy; Substances and Materials; Cellular structure of the organisms, water, air and soil; The problem Space-Time and Matter and General Natural Pattern of the World.

Teaching and assessment:

The course is taught through lectures and seminars. There is a certain number of points that should be accumulated in order to obtain semester continuous assessment for this course. There are exact criteria concerning the seminar essay. The way of forming the final grade includes the results from the continuous assessment and the quality of the seminar essay.

SB14636 Theory and Methods of Teaching Fine Arts in the Primary School**ECTS credits:** 7**Weekly classes:** 2lec+0sem+0labs+2ps+cw**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Prof. Mariana Mincheva Garmidolova, MA, PhD, D. Art, Dept. of Graphic Design and Visual Communications,
"St. Cyril and St. Methodius" University of Veliko Tarnovo

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The aim of the course is to provide students with a rich spectrum of knowledge on the goals and main tasks of introducing children to fine arts in the primary stage of the Bulgarian educational system.

Course content:

The course of lectures focuses on: the objectives, the main tasks, the specifics and the new trends of art education in the kindergarten; the specificity of the methods and techniques; the forms of pictorial activity in the kindergarten, etc. The practice focus on the specifics of colour combinations, painting, graphics and sculpture creation and their implementation in the arts education in the primary school. Special emphasis is placed on the specific of the decorative applied arts as well as on the problems of drawing shapes, the specifics of the teamwork, group work and the project activities.

Teaching and assessment:

In the lectures the course tutor uses the whole-class interaction pattern and visualizes a variety of accessible didactic materials. During the seminars the students demonstrate their skills for presenting their artistic ideas through the means of fine art and they also demonstrate the level to which they have acquired the relative fine art material and technique. The final grade is formed on the basis of a positive result on the exam and it also takes into account the overall results on the seminars and the level of mastery on the individually prepared course work.

SB11041 English 4**ECTS credits:** 5**Assessment:** continuous assessment**Departments involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Abstract:** The basic aim of the course is to improve the level of students from B1 towards B1+ according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and widening the vocabulary range.**Course content:** The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are deepened and expanded, semi-formal and formal registers are introduced at this stage.**Teaching and assessment:** Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis. The overall grades are awarded on the basis of two essays, two written tests and a course paper – a presentation, based on a topic, chosen by the students themselves.**Weekly classes:** 0lec+0sem+0labs+4ps+ca**Type of exam:** written**SB11042 German 4****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from B1 towards B2 according to the European framework. Teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and reading.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are deepened and expanded, semi-formal and formal registers are introduced at this stage.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework. The overall grades are awarded on the basis of two compositions – a report and an essay, two written tests and a course paper requiring students to research a topic and do a mini-workshop.

Weekly classes: 0lec+0sem+0labs+4ps+ca**Type of exam:** written and oral

SB11043 French 4**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: rivanova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from B1 towards B2 according to the European framework. The teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. For this course the emphasis is on speaking and reading.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are enhanced and expanded, semi-formal and formal registers are introduced at this stage.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes homework. The overall grades are awarded on the basis of two compositions – a report and an essay, two written tests and a course paper requiring students to research a topic and do a mini-workshop.

Weekly classes: 0lec+0sem+0labs+4ps+ca**Type of exam:** written and oral**S00598 Role Training****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Nikolina Angelova-Barbolova, M.D., PhD, Department of Health Care

tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bg

Lecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

The aim of the behaviour role training is to expand the individual potential of the pedagogue to increase role flexibility, creative and communication skills, to deepen self-reflection, sensitivity and empathy, the ability for realistic perception of others and understanding the interdependence between the individual and the group. Behaviour role training aims to bring about the development of certain limited aspects of human nature, so that professional and personal goals of the individual are achieved more adequately.

Course content:

The contents of behavioral role training include: a theoretical part familiarizing students with the role theory, role analysis, the theory of argumentation of the social and cultural atom of the individual, role system, role positions and behavioral role training. It presents theoretically main methods of work: sociometry, psycho-drama and socio-drama.

Teaching and assessment:

The main methods of instruction are discussion, sociometrics, socio- and psycho-drama. In the course of lectures students should acquire the notions of role, role positions and role analysis; the notions are later developed in an empirical way.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

S01216 Aesthetics**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: mzheliazkova@abv.bg**Abstract:**

The purpose of the lecture course is to clarify questions, concerning the beautiful and the sublime, the tragic and comic, the substance of art and its regularities and specifics. The course helps students develop aesthetic appreciation and criteria and broaden their aesthetic culture.

Course content:

The questions examined in the course can be divided into four groups. The first group includes topics on the history of aesthetic thought; the accent is on the life and work of aestheticians with a long-lasting influence on human thought. The second group deals with the basic aesthetic categories: the beautiful, the sublime, the tragic, the comic, etc.; students should develop both theoretical and practical skills for recognizing them in life, nature and art. The third circle of questions is directed to the problems of the arts - poly-functionality, art forms, etc. The fourth group is focused on aesthetics in life – aesthetic taste, aesthetic education, behaviour, etc.

Teaching and assessment:

Continuous assessment involves students answering 2 questions in writing. The semester is validated only if classes have been attended regularly.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**S03930 Educative Work of Class Teachers****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The topics include organisation of activities, realisation of the aims and tasks of today's school work. There is particular stress on the technology of planning and diagnostics of the activities so that educational content of the course is carried out.

Course content:

Technology of the educative work of class teachers. Basic principles of carrying out educative work in the elementary school. Educative work as a kind of pedagogical technology. Theoretical and legislative foundations. Content of the work with the school class. Major tendencies. Educative work of the class teacher carried out through different types of activities. Essence, specific character and educative functions. Specificity, tendencies and organisation of extracurricular activities.

Teaching and assessment:

During the lecture course students get acquainted with the theoretical and also practical foundations for organisation of the educative work of class teachers. Interactive methods are used for analysing pedagogical situations in the work of class teachers. The course ends with the submission of a paper (based on one of the topics given above).

S03929 Working with Children of Unequal Status**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgAssoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The goal of this course is to familiarize the students with the theoretical knowledge necessary for working with children of unequal social status. The course acquaints the students with the specific methods of training such students, as well as with the main principles and techniques of this training. The course helps students to adopt positive manner of working with children of unequal status, as well as develop definite personal values.

Course content:

Common Characteristics of Children of Unequal Status; Children with Health Problems; Children with Social Problems; Professional and Personal Skills of the Teacher Working with Children of Unequal Status.

Main Topics: Characteristics of the Types of Groups Comprising of Children with Unequal Social Status. Characteristics and Functions of the Types of Institutions involved in the Fostering and Upbringing of Children of Unequal Social Status. Educational and Socializing Parameters of the Teaching Process of Children of Unequal Social Status.

Teaching and assessment:

The course comprises of lectures. The assessment is continuous.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**SB14637 Modern Technologies of Educative Work in the Wholeday Organisation of the Education Process****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 752, E-mail: prpetrov@uni-ruse.bg**Abstract:**

The aim of the course is to outline the main aspects of the whole-day organization of the educational process; to analyze the legal basis and the changes in the Pre-school and School Education Act; to look at variants of planning for the educational process in whole-day organization of school day; to develop exemplary variants of organization and conduct of the activities in the whole-day training.

Course content:

Pedagogical and didactic projections of the teacher-educator-child / pupil relationship during the whole-day organization of the educational process. Normative basis for the whole-day organization of the educational process. Implementation of the framework program for day-to-day organization of the educational process. Good practices and guidelines for activities of organized recreation and physical activity. Didactic requirements in carrying out self-preparation activities. Planning, preparation and implementation of interest activities. Forms for the realization of active learning during the whole day organization of the learning process. Methodological solutions for the use of ICT-based activities in the pedagogical process in the whole-day training organization. Vocational orientation as part of the activities of interest in the whole-day organization of the educational process. Game activities during the whole day organization of the learning process.

Art and sport in the whole day organization of the learning process.**Teaching and assessment:**

The methodology of the lectures is organized on the basis of a logical and meaningful connection of the problems on the main topics included in the curriculum. A 30-minute test was performed on the discipline. It includes questions of a theoretical and practical nature. The assessment is formed by the results of the test.

S03888 Methods of Teaching Man and Nature**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps+ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

This course's goal is methodological training of the students to teach the Natural Sciences part of the subject The World Around – in 2nd grade and the subject Man and Nature in the 3rd and 4th grade in the primary stage of education in the Bulgarian school. In practical aspect, the course is based on the pedagogical practice conducted by the course in the previous semester.

Course content:

Methodological system of the subject; Methodological system of the following foundation topics: Bodies and Substances (3rd grade), Properties and usage of Substances (4th grade), Air and Water (3rd grade), Movement and Energy (4th grade), Changes of the Seasons (2nd grade), The Planet Earth (4th grade); Methodological system of the ground topics for the living nature: Plants and Animals (2nd grade), Living organisms and their environment (3rd grade), Variety in Living Nature (4th grade).

Teaching and assessment:

The training in this course is accomplished through lectures and seminars. The way of forming the final grade includes the results from the continuous assessment and the quality of the course paper.

S03944 Lesson Observation in the Primary School**ECTS credits:** 3**Weekly classes:** 0lec+0sem+0labs+3ps**Assessment:** preliminary exam**Type of exam:** oral**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Violeta Jordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports,

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The observation of lessons aims at introducing students to the immediate learning environment of basic education, early stage, through direct observation of lessons, conducted by leading teachers.

Course content:

There are lessons in Bulgarian Language and Literature, Mathematics, Man and Society, Man and Nature, Home and Technology, Physical Education and the Class Teacher's Lesson.

Teaching and assessment:

The observation is conducted by a methodologist who pre-assigns students tasks after the lesson observation. The discussion of the observed lessons takes place after the classes and the teachers. The university methodologists leads the discussion and allows for questions.

S03886 Methods of Teaching Bulgarian Language and Literature**ECTS credits:** 9**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: pometkova@uni-ruse.bgAssoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course aims at giving students theoretical and practical knowledge about the nature and specific features of teaching and acquiring the native language in the primary school age. It focuses on the problems of native-language and literary education in the primary school with regard to new concepts and recent developments in the field.

Course content: Specifics of the subject Bulgarian Language and Literature in the primary school. A system of teaching elementary literacy. Language acquisition; Development of coherent speech and written speech abilities in the elementary school class; The connection of the work for developing speech abilities with the literary and language education.

Teaching and assessment:

The module is taught through a combination of lectures, seminars and practical classes. The lectures, seminars and practical classes consider a selection of theoretical problems and perspectives on teaching and learning languages and literature, and relate these to different practical solutions and examples. Students prepare a course work on a given topic and illustrate the application of a methodological approach in a specific lesson. The course ends with a written exam. Students write on a summary question from the syllabus and answer questions on the course work.

Weekly classes: 3lec+1sem+0labs+2ps+cw**Type of exam:** written**S03887 Methods of Instruction Man and Society****ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course takes into consideration the unique conditions in the personal development of children with their specific experience and stage of accepting and processing the information about objective reality, as well as their orientation in natural and social events. Through his/her pedagogical interactions with the subject, the teacher is obliged to take out the experience of the children from their condition of pre-school and pre-theoretical disunion and lack of a system to the cognitive and intellectual ability for absorbing the social sciences in upper grades.

Course content:

Goals and Assignments of the educational work in the subjects Man and Society and Civil Education; Program contents in primary school; The Lesson; The Excursion; Contents and Characteristics of the subjects Man and Society and Civil Education; Social areas.

Teaching and assessment:

The educational process comprises of lectures and seminars. The students have to achieve a certain number of skills for unaided solving of creative tasks in the area of programming and conducting the forms of educational work in Man and Society and in Civil Education.

Weekly classes: 2lec+1sem+0labs+0ps+ca**Type of exam:** written

3932 Methods of Teaching English**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The course content is in compliance with the current developments in the field of foreign language teaching in Europe and the world which introduce new methodological approaches for teaching and learning a foreign language. The content focuses on the development of students' theoretical knowledge and practical skills for teaching English as a foreign language to primary school pupils (grades 1 to 4).

Course content:

Specific Characteristics, Scope and Tasks of the Discipline. Approaches to teaching a foreign language – a historical overview. Profile of the young learner, psychological characteristics and specific features of the foreign language young learner lesson. Factors affecting the acquisition of a foreign language by children. Lesson planning. Introducing new vocabulary. Teaching grammar to children. Development of listening and speaking skills. Integrating songs in the L2 classroom. The role of games in teaching English as L2 to children. Integrating stories in the L2 lesson. Mixed ability learners. Language and culture teaching in the young learner English language classroom. Error correction. Grading and assessment of young learners' English language knowledge and skills.

Teaching and assessment:

The course content is delivered in the form of lectures and practical seminars. The lectures present the main theoretical issues, while the seminars contribute to the development of students' practical skills for planning young learner English language lessons. Students prepare a course assignment in which they apply various techniques for planning the course content of an English language lessons to primary school learners. Students sit a written exam based on a specially designed syllabus covering all the topics discussed during the lectures and seminars.

S03933 Methods of Teaching German**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Senior Lecturer Sergey Vasilev Bartenev, MA, Dept. of Foreign Languages
tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at providing knowledge and develop skills necessary for teaching German to young learners- from Pre-school to year four in the primary. As well as that, it strives to improve the linguistic proficiency of students primarily in the field of classroom language and narrative skills.

Course content:

Theoretical input and skills development related to teaching German to Young Learners. Seminal topics are : Major Issues in TGYL, First Steps in Reading and Writing, Games, Songs, Using Stories, Testing for YL, German across the Curriculum, etc.

Teaching and assessment:

the underlying principle for academic work is to provide students with basic theoretical input during the lectures and seminars and then involve them in discussions and task analysis of authentic teaching materials designed for YL. The semester is validated by means of regular attendance and a course assignment submission. The written exam covers the material discussed in both lectures and seminars.

S03934 Methods of Teaching French**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Senior Lecturer Rumyana Ivanova Milanova, MA, Department of Foreign Languages
tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at providing knowledge and develop skills necessary for teaching French to young learners-from Pre-school to year four in the primary. As well as that, it strives to improve the linguistic proficiency of students primarily in the field of classroom language and narrative skills.

Course content:

Theoretical input and skills development related to teaching French to Young Learners. Seminal topics are : Major Issues in TFYL, First Steps in Reading and Writing, Games, Songs, Using Stories, Testing for YL, French across the Curriculum, etc.

Teaching and assessment:

the underlying principle for academic work is to provide students with basic theoretical input during the lectures and seminars and then involve them in discussions and task analysis of authentic teaching materials designed for YL. The semester is validated by means of regular attendance and a course assignment submission. The written exam covers the material discussed in both lectures and seminars.

Weekly classes: 2lec+0sem+0labs+2ps+cw**Type of exam:** written**S03935 English 5****ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from B1 towards B1+ according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and widening the vocabulary range.

Course content:

The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are deepened and expanded, semi-formal and formal registers are introduced at this stage.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis. The overall grades are awarded on the basis of two essays, two written tests and a course paper – a presentation, based on a topic, chosen by the students themselves.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written

S03936 German 5**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergey Vasilev Bartenev, MA, Dept. of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps**Type of exam:** written**Abstract:**

The course aims at improving the level of students' knowledge of German and working towards achieving a B2 level of language competence. The teacher aims at developing all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on improving the writing and reading skills.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are revised, enhanced and expanded.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes assigning homework tasks. Students' progress is monitored on the basis of four compositions – two descriptive essays, a formal letter and a semi-formal transactional letter, two written tests and a course assignment requiring students to translate 50 pages from an unabridged children's book.

S03937 French 5**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+3ps**Type of exam:** written**Abstract:**

The course aims at improving the level of students' knowledge of French and working towards achieving a B2 level of language competence. The teacher aims at developing all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on improving the writing and reading skills.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are revised, enhanced and expanded.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Progress is monitored regularly and includes assigning homework tasks. Students' progress is monitored on the basis of four compositions – two descriptive essays, a formal letter and a semi-formal transactional letter, two written tests and a course assignment requiring students to translate 50 pages from an unabridged children's book.

SB14638 Development of the Creative Abilities of Pre-school and Primary School Children**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main goal of this subject is practical training of the students for accomplishing the goals of creative education in pre-school age and primary school. To assure the competent managing of creative processes in this course are included specific methodological suggestions for stimulating creativity, as well as algorithms for development, modification and adaptation of creative assignments and games.

Course content:

Main topics: Emotional climate and the role of pedagogue for activating creative thinking; Technologies for development of skills for creative thinking according to the system of E. De Bono; TRIS. Technology for stimulating creativity through humor; TRIS; Analysis of the products of children's creativity.

Teaching and assessment:

Informative-explanatory, problem-oriented and illustration methods are used when presenting theoretical knowledge and instructions for group and individual creative activity of the students. In the technology of education, priorities are given to the practical application of methods and approaches to creativity, of modeling creative situations, conducting discussions, analysing products of the creative activity.

The final grade is formed according to a test performance.

Weekly classes: 0lec+1sem+0labs+0ps**Type of exam:** written**SB14638 Project-based Education in the Primary School****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The purpose of the course training is to acquaint students with the theoretical and applied aspects of project-based learning. Emphasis is placed on the possibilities for integrating the project method in the educational process. Students are introduced to the technological model of planning and implementation of project work in elementary school age, as well as the criteria for evaluating the project presentation and project product.

Course content:

The course covers: theoretical foundations of project-based training; reformist pedagogy and the ideas of John Dewey, Ellen Parkhurst, Roger Cousinet and others; group activity as a major component of project-based training; project-based training in a multi-age classroom organization; learning through collaboration; prospects for realization of project-based training as an educational technology in modern conditions; "Project Method" and project-based training; technological model of planning and realization of the project work; classification of project types; managing project activities and the role of the teacher. Criteria for evaluating project work.

Teaching and assessment:**Weekly classes:** 0lec+1sem+0labs+0ps**Type of exam:** written

The learning process is conducted through seminars. Interactive methods and tools, multimedia presentations, diagrams, tables, models are used. The seminars aim to encourage students to plan and implement project activities in order to understand and reflect on the theoretical material taught.

SB14640 Acquisition of Bulgarian Language by Bilingual Children**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of **Pedagogy, Psychology and History****Faculty of Natural Sciences and Education****Lecturers:****Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History**tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 0lec+1sem+0labs+0ps**Type of exam:** written**SB14641 Pedagogy of Communication Skills****ECTS credits:** 1**Assessment:** continue assessment**Departments involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Science and Education**Lecturers:****Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History**tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

Practice for the formation of communication skills is designed to introduce students to basic models, strategies and techniques in teacher interaction to form in their ability to communicate with certain levels of socio-educational activities. Particular attention is paid to the practical options for development and implementation of interactive techniques to realize the main objectives and tasks of social work educator.

Course content:

History of communication. Effects of technical means on its development and modification. Information requirements - reliability, timeliness and efficiency. Legal security of our right to be informed. Ways to collect and transmit information. Key features and principles of communication: media and persuasion, education and awareness, heuristic etc. Types of communication. Classifications for various indications. Monologue types of communication. Preparation and implementation of a report, speech, lecture, and more. Computer presentation. Dialogue as a form of communication. Sports. Preparation and management of discussion, dispute, talk and more. Negotiations as a kind of communication. Types of negotiations. Negotiation strategies and tactics. Preparation for participation in different types of communication. Their organization and structure. Introduction, body and conclusion. Ranking information in the exhibition. Logical and rhetorical argumentation. Types of arguments. Types of communication.

Teaching and assessment:

Teaching is conducted by practical with students' differentiated groups. Students are introduced to theoretical and practical bases mainly in the formation of social and personal skills specific to the profession of social pedagogue in accordance with the age of customers. Arrangements are interactive methods for the formation of attitudes and skills for productive educational interaction.

SB14642 Intercultural Education and Socialization of Children from Different Ethnic Groups**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The course aims at introducing students to the most important theories about the differences of cultures on national, European and global scale and to examine the specificity of the Bulgarian case with its ethno-cultural groups and the interactions between them.

Course content:

Globalization and the emergence of intercultural education. The Child in the World of Culture. Essence of the concept of culture and its role in human development. Role of culture in human development. Development of ethnic self-awareness / cultural identity. Nature and content of intercultural education. Intercultural interactions in kindergarten and elementary school. Teacher and intercultural education. Methods of working in intercultural environment. Minority education.

Teaching and assessment:

Frontal - through lectures using multimedia, discussions and other forms of interaction. The final grade is formed by a written exam, which takes the form of a test covering the entire course content of the discipline.

S03896 Theory and Methods of Teaching Sport and Physical Activity**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Physical Education and Sport
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Kamen Vaskov Simeonov, MA, PhD, Dept. of Physical Education and Sport

tel.: 082 / 888 255, E-mail: ksimeonov@uni-ruse.bg

Abstract: The course Teaching Sport and Physical Activity is intended for undergraduate students of Primary Education and a Foreign Language. Students should gain an understanding of the range of knowledge and skills underpinning sports activities and development. The course covers topics that should reveal the basic principles, means and methods of managing the educational process during the PE classes in primary schools. It focuses also on the range of activities and forms of physical education in schools.

Course content: Introduction and subject matter of the course; General classification of the means and forms of PE; Initiatives for developing physical abilities of children; Motional habits; Physical abilities; Didactic principles; Curriculum for pre-elementary and primary school physical education; Diagnosis of the physical activity of children at a primary school age.

Teaching and assessment: During the lectures and practical classes, it is easy to acquire the knowledge about the basic issues in the theory of physical education. They are held according to the contemporary requirements for effective training. They aim at helping students receive a sound theoretical and practical preparation.

S03943 Teaching Practice**ECTS credits:** 3**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeoova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course seeks direct involvement of students in the educational practice at school by conducting lessons in different classes of primary school.

Course content: Students deliver lessons in Bulgarian Language, Mathematics, Sports, Man and Society, Man and Nature, Arts, Music and The Class Teacher's Lesson.**Teaching and assessment:**

The school practice is led by a lecturer and experts in the respective methods of teaching. The students prepare a detailed plan of the lesson they are going to present; after that they discuss it with the teacher of the class in which they are going to have the lesson, then with the methodologist and finally with the lecturer. During the practice there is a methodological analysis of the five lessons (on the same day) conducted by different students, a discussion and methodological analysis of the lessons is organized to evaluate their merits and weaknesses.

S03897 Children's Literature**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:** The course aims at introducing students to the classical literary works for children by Bulgarian and foreign authors. The course in Literary Theory is a prerequisite for Children Literature. The subject assists the acquisition of knowledge and skills, necessary for the literature classes (reading) in the primary school.**Course content:** The world of the child in the children literature and the children literature in the world of the child; Arabian Nights; Charles Perrault, The Grimm Brothers, Wilhelm Hauff, Hans Christian Andersen, Pushkin, Mark Twain, Lewis Carroll, Astrid Lindgren, Jannie Roddary, Petko R. Slaveikov, Ivan Vazov.**Teaching and assessment:** Lectures are designed to provide students with knowledge about the richness and diversity of children literature in Bulgaria and worldwide. At lectures, students are offered different directions and possibilities of interpretation of literary texts. Seminars are designed to practice and complement the material introduces at lectures. The semester is validated only if the classes have been attended regularly.

S03898 Pedagogical Psychology**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bg**Abstract:**

The subject aims at introducing students to the psychological mechanisms and regularities of the educational activities in the primary school and their progressive character.

Course content:

Students will study the new functions of psychological knowledge. They will acquire the latest methods for psycho-diagnosis during game and learning activities, the ways of motivating the teaching/learning process, the psychological conditions underlying the effective educational process. Special attention is paid to the process of forming children's personality through the basic educational activities in kindergartens and primary schools.

Teaching and assessment:

The course is taught by using a combination of lectures and seminar classes (tests, methods of psycho-diagnosis).

Weekly classes: 1lec+1sem+0labs+0ps+ca**Type of exam:** written**SB14644 The Art of Speech and Performance****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Velislava Vladimirova Doneva, PhD, MA, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The course aims at introducing students, the future teachers, to methods and techniques for effective speaking in public, for reproducing passages from works of fiction in an expressive verbal way. Besides, they will learn how to apply such techniques in their work as teachers and how to modify them in accordance with the age requirements of children. They will get acquainted with the methodology for teaching children correct pronunciation and will have the opportunity to improve their own abilities to speak correctly which is of vital importance in their work as teachers.

Course content:

Objectives and tasks of the course. Techniques for delivering a good speech. Articulation and organs of articulation. Orthoepy. Artistic perception. Parallels between public speech acts and acting. Means and forms of the artistic, logical and emotional expression. Methodology of teaching public speech skills. Outside- the -classroom activities in speech-performance art in the primary school.

Teaching and assessment:

The instruction is done by practical classes. The process of continuous assessment is based on tests with questions of theoretical and applying character and an artistic performance of texts.

SB14645 Linguistic Aspects of Acquisition of English as L2 by Young Learners**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The course content is aimed at familiarizing students with the specific features of the neurophysiological and psychological processes at the heart of the fundamental language abilities – speech perception and production. Students get acquainted with the age acquisition hypothesis and the role of age as an important factor in foreign language learning. The course gives relevant knowledge about the phonological, lexical, grammatical and orthographic aspects of English language acquisition by Bulgarian young learners.

Course content:

Applied Linguistics – Definition, Scope and Tasks. Fundamental Language Abilities. Psychological Evidence of the Language System. Biological Foundations of Language. Word Detector Models. Theories Explaining First and Second Language Acquisition. Physical, Psychological, Emotional and Social Development of Children. Development of Perceptual Comprehension of Speech. Orthographic Competence. Lexical Competence. Specific Aspects of Acquisition of L2 Grammar by Children.

Teaching and assessment:

The course comprises of lectures and seminars that are conducted in the foreign language. In the seminars students present orally their knowledge on the discussed topics and acquire practical skills which serve the basis of their future professional development as primary school English language teachers. Students prepare a course work on an assigned by the tutor topic. At the end of the semester students sit a written exam on the course subject matter. The final mark is an average of the mark on the course work (10%) and the exam mark (90%).

SB14646 Linguistic Aspects of German Acquisition by Young Learners**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages
tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course is designed for the VI term in the training of students in Primary School Teachers with a Foreign Language. The learners have to be aware not only of the latest methods of foreign language teaching but of the learning abilities of young pupils, as well and the specificities in their acquisition of the foreign language.

Course content:

Students learn to make thorough characteristics of different age group pupils- their language, cognitive, social-emotional, physical and cultural development. Students become aware of the distinction between language acquisition and language learning, as well as, psychological and physiological aspects of this language process. The course gives relevant knowledge about lexical, phonological, grammatical and orthographic aspects of foreign language acquisition by young learners.

Teaching and assessment:

The classes that are conducted in the respective foreign language, which in its turn improves students' general foreign language level. Seminars are assigned on matters from the general topics of the course and students have to explore contemporary electronic sources. Students have practical phonetic exercises to rectify pronunciation, they make error analysis, language level assessment in view of the Common European Framework. In the end, students sit for a written exam on the course subject matter.

SB14647 Linguistic Aspects of French Acquisition by Young Learners**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Sr. Assist. Prof. Romyana Ivanova Milanova, MA, Dept. of Foreign Languages,
tel.: 888 824, E-mail: ruivanova@uni-ruse.bg**Weekly classes:** 2lec+1sem+0labs+0ps+cw**Type of exam:** written**Abstract:**

The course is designed for the VI semester in the training of students in Primary School Teachers with a Foreign Language. The learners have to be aware not only of the latest methods of foreign language teaching but of the learning abilities of young pupils, as well and the specificities in their acquisition of the foreign language.

Course content:

Students learn to make thorough characteristics of different age group pupils- their language, cognitive, social-emotional, physical and cultural development. Students become aware of the distinction between language acquisition and language learning, as well as, psychological and physiological aspects of this language process. The course gives relevant knowledge about lexical, phonological, grammatical and orthographic aspects of foreign language acquisition by young learners.

Teaching and assessment:

The classes that are conducted in the respective foreign language, which in its turn improves students' general foreign language level. Seminars are assigned on matters from the general topics of the course and students have to explore contemporary electronic sources. Students have practical phonetic exercises to rectify pronunciation, they make error analysis, language level assessment in view of the Common European Framework. In the end, students sit for a written exam on the course subject matter.

S03949 English 6**ECTS credits:** 2**Assessment:** exam**Departments involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Weekly classes:** 0lec+0sem+0labs+2ps**Type of exam:** written**Abstract:**

The basic aim of the course is to improve the level of students from B1 towards B1+ according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and widening the vocabulary range.

Course content:

The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are deepened and expanded, semi-formal and formal registers are introduced at this stage.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis. The overall grades are awarded on the basis of two essays and two written tests.

S03950 German 6**ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at improving the level of students' knowledge of German and working towards achieving a B2-C1 level of language competence. Teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on improving the students' monologue speech, listening and writing skills.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are expanded. Students are provided with additional practice aimed at improving their skills to speak uninterrupted for longer periods of time.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Students' progress is monitored on the basis of five compositions – two discursive essays, an article, a report and a literary essay, and a course assignment requiring students to prepare and make a 5- minute presentation on a chosen topic.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**S03951 French 6****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior lecturer Rumyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at improving the level of students' knowledge of French and working towards achieving a B2-C1 level of language competence. Teacher aims at developing simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on improving the students' monologue speech, listening and writing skills.

Course content:

The course contains a wide range of topics, related to the future communicative needs of students. These include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are expanded. Students are provided with additional practice aimed at improving their skills to speak uninterrupted for longer periods of time.

Teaching and assessment:

Personal involvement and motivation are encouraged by tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups, etc. Students' progress is monitored on the basis of five compositions – two discursive essays, an article, a report and a literary essay, and a course assignment requiring students to prepare and make a 5-minute presentation on a chosen topic.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

SB14581 Religion and Education**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Education**Lecturer:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Course description:**

The course traces the issues related to the emergence of the first religious beliefs and ideas in antiquity (animism, totemism, paganism), the development of thorough religious and philosophic doctrines (Hinduism), and the rise of the world religions (Buddhism, Judaism, Christianity, Islam). The course seeks to reveal the common elements in the different religious beliefs, elements that underline the idea of universality of religious thought the preached moral values.

Course contents:

Emergence of the religious believes - animism, totemism, paganism, dualism, monotheism, Hinduism, Buddhism, Mazdaism, Judaism, Christianity, Islam. The great religious teachers of humankind and the moral values preached by them.

Teaching and Assessment:

The course is taught by lectures. They are designed according to a comparative principle as the course aims to reveal the common aspects in the philosophic structure of the different religious doctrines. The semester will be validated only if the classes have been attended regularly. The course is examined on a written test administered at the end of the term.

SB14580 History of the Ethnic and Religious Communities in Bulgaria**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course initiates the religious and cultural specifics of the ethnic and religious societies in Bulgaria. It expresses in specific form the special features of working with different ethnic *and religious* groups in our country and ways of interaction between them.

Course content:

Basic knowledge is orientated towards defining specific terms and going through the basic theories of cultural differentiation. Specific techniques are examined for the purposes of working in ethno-cultural environment and multicultural education.

Teaching and assessment:

The mode of education is traditional conducting of lectures, accompanied by multimedia presentations.

Lecture attendance is obligatory. The course is considered valid if students have attended classes regularly. Students' knowledge is assessed by means of a written exam. During the semester students have to write individually a library-research paper. At the end of the course the final grade is based upon the marks of the continuous assessment tests and the library-research paper.

S00615 Principles of Christianity**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course is intended for students of Primary - school Education and a Foreign Language and Pre-elementary and Primary - school Education of the Faculty of education. It examines questions related to the emergence of Christianity and its evolution into a worldwide religion. Attention is paid to issues concerning the basis of the Christian church and Christian societies, the emergence of the early Christian heresy, the deepening of the contradictions between the Eastern - orthodox and Roman catholic church till the, so called, Great Schism in the year of 1054. The course deals also with issues related to the Protestantism and the differences and similarities between the different currents in Christianity nowadays. Problems concerning the newly appeared sects in this country are also discussed. Thus the course not only introduces students to the basic principles of Christianity but also contributes to the broadening of their outlook.

Course content:

Religious believes in the Roman Empire, Jesus from Nazareth and his mission. Emergence of Christianity and its adoption as a state religion. The 'Christian church' till the year of 1054 and afterwards .Christianity in Bulgaria. The religious sects in Bulgaria and ways of protection against their influence.

Teaching and assessment:

The course is taught by lectures. The semester will be considered validated only if the classes have been attended regularly. The course is examined on a written test administered at the end of the term and a subsequent interview with the lecturer.

S00605 History of Music**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science

tel.: 0886 60 75 81, E-mail: yapovak@abv.bg

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course History of Music aims to introduce students to the development of music in Europe, with major periods in music culture and their specific characteristics. Knowledge of music is an important part of the overall humanitarian and training are essential for the students - future teachers and educators. This knowledge can be successfully constructed after hearing mastering music samples because music is an art focused on the perception of hearing. Therefore, in parallel with cognitive course provides information and listening to music, which are representative for its author, and the trends of the era

Course content:

The course traces the emergence of historical consciousness and historical approach in musicology and periodization in music. Advanced regarded music in antiquity, medieval genres of music, liturgical music in Western Europe, the music in the age of Baroque, Classicism and its representatives, Romanticism - representatives and genres. Particular attention is paid to musical genres from different periods in music history: Development of operatic genre, music genres from the Renaissance, the development of the symphony and chamber genre in Romanticism. Different national music schools and their representatives. Particularly important is the creation of the Bulgarian music style.

Teaching and assessment:

The course follows the topics given in the syllabus. The course ends with a continuous assessment will be based on a prepared text written on a topic.

SB14582 Theory and Methods of Teaching Technology and Entrepreneurship

ECTS credits: 6

Weekly classes: 2lec+0sem+0labs+2ps+cw

Assessment: exam

Type of exam: written

Department involved:

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Abstract:

This course aims to give students specialised methodological knowledge and practical technical skills necessary for the teaching of Technology and Entrepreneurship subject at the primary school level. The topics covered in the course complies with the state educational requirements included in the national Technology and Entrepreneurship curriculum for the primary school level, as well as with the other subjects comprising the Technology and Entrepreneurship Sphere in the approved state curriculum.

Course content: Technology and Entrepreneurship as a subject (primary school level from 1st to 4th grade), didactic technologies in the system of technology training, content of lessons, didactic principles, methods of teaching, forms of organization, natural materials, paper and cardboard, materials from metal, machine elements, mechanisms, plastic materials, textile, leather, electricity, domestic labour and service labour, technical modelling and constructing, work in the open.

Teaching and assessment: The course tutor uses the whole-class interaction pattern during the lectures and visualizes a variety of accessible didactic materials. Students work individually or in groups during the seminars. Their individual or group work is preceded by a revision of the theoretical knowledge on the problem. The final grade is formed on the basis of a positive result on the exam but it also reflects the overall performance of the students during the seminars and the level of overall successful completion of the course work.

SB10934 Pedagogical Diagnostics

ECTS credits: 3

Weekly classes: 2lec+0sem+0labs+0ps+ca

Assessment: exam

Type of exam: written

Department involved:

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturer:

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Abstract:

The course aims at introducing the undergraduate students to the methods and practice of research in an educational context (mainly in kindergartens and primary schools). Students will acquire skills for gathering and processing relevant information, locating and reviewing literature in the appropriate fields, summarising the results of the research and preparing of the study for publishing.

Course content:

Principles of pedagogical research. Methods of pedagogical research. Processing and analysing information and data. Statistical methods for processing data. Issues in statistical analysis, application of statistical criteria. Statistical analysis and interpretation of results. Summarising the results of the research and preparing of the study for publishing. Academic writing techniques: preparation of a diploma paper, scientific report, publications in scientific journals.

Teaching and assessment:

Lectures are designed to provide students with both theoretical and practical knowledge.

SB10935 Culture of Speech and Behaviour**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Mira Zhivodareva Dushkova, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bgAssist. Prof. Niya Atanasova Peneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: ndoneva@uni-ruse.bg**Abstract:**The syllabus in *Culture of Speech and Behaviour* is designed for the fourth year students in the bachelor degree programme *Primary School Education with a Foreign Language*.

The aim of the subject is to support students in expanding their knowledge in contemporary Bulgarian language and applying their knowledge efficiently in the written and oral speech.

Course content:

The main topics are: Emphasis in the Bulgarian language; Spelling and pronunciation of vowels. Mutation of 'ya' and 'e' vowels. Spelling and pronunciation of consonants. Use of full and contracted countable form. Agreement in polite forms. Synonyms, paronyms, homonyms, antonyms. Punctuation of simple sentences. Punctuation of complex sentences.

Teaching and assessment:

The teaching is conducted in the mode lectures and seminars. In the lectures, the students acquire theoretical knowledge on spelling and speaking rules, which is consolidated further in the seminars. Various forms and methods of work are used (lecture, presentation, basic and additional exercises, different types of written exercises). During the seminars, tests for checking the quality of acquisition of knowledge. The syllabus includes individual work on research papers, covering topics assigned in advance.

Weekly classes: 1lec+2sem+0labs+0ps+se**Type of exam:** written**S03952 Foundations of Special Education****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course is intended for the undergraduate students in Primary School Education with a Foreign Language. It aims at familiarizing them with the pedagogical minimum of knowledge and skills necessary for successful work with children with mental, hearing, eyesight and speech disabilities. The instruction is done by means of lectures.

Course content:

The course deals with issues related to practical skills, perceptions and attitudes towards normality and disability, basic anomalies in the child's development, identifying responsibilities in teaching children with disabilities, etc. The training is directed towards a correct educational work with mentally disabled children and the means of influencing them during their upbringing and education.

Teaching and assessment:

The educative process is in the form of lectures in which diagnostic methods and general features typical of children with disabilities are examined.

Weekly classes: 2lec+0sem+0labs+0ps+ca**Type of exam:** written

SB14648 Classroom Management**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps+se**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg

Abstract:

The aim of the course is to allow pedagogy students to become acquainted with the tools they will use in their future occupation to complete one of the hardest tasks for teachers – creating the necessary safe, organized learning environment for the effective development and education of their pupils. The topics cover various organizational and procedural means of control over the processes in a school class to meet the quality and effectiveness requirements of education through.

Course content:

The main topics in the course are: Theoretical foundations of class management; Rules and techniques for classroom management; The teacher as class manager; Management of the team working with the class; Work in special classes; Concepts and models of education management; Motivation – rules for teachers and pupils; Management and styles of learning; Managing the class room like a work environment; Strategies for keeping order; Disciplinary models; Managing pupil behavior; Managing the social circle of the class.

Teaching and assessment:

The course is taught using lectures, discussions, trainings, group work, practical assignments and observation. A portfolio is created for the discipline, containing works on different problems from the course. Outside of class, students are required to write a paper on a topic chosen from a list of suggestions. The final grade is based on the results from the paper and a test.

SB11048 Teaching Practice in English Language**ECTS credits:** 2**Weekly classes:** 0lec+0sem+0labs+2ps**Assessment:** preliminary exam**Type of exam:** oral**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Abstract:

The Teaching Practice in English Language aims at acquainting students with the teaching process in English language at primary school level. It provides an opportunity for students to put to practice the acquainted knowledge and developed skills as a result of the education in the *Methods of Instruction of English*, to establish good rapport with pupils, to get familiar with the work in English classes in Bulgarian schools.

Course content:

Grammar presentation lesson. Vocabulary presentation lesson. Grammar practice lesson. Vocabulary practice lesson. Grammar revision lesson. Vocabulary revision lesson. Integrated skills lesson: listening. Integrated skills lesson: speaking. Integrated skills lesson: reading. Integrated skills lesson: writing.

Teaching and assessment:

At selected schools students are sent to all primary school classes where English language is taught (the classes are appointed provisional by the Head Teacher). Students contact the English language teacher of the classes in advance. The teacher gives them the lesson topics according to the sequence in his / her long term lesson planning schedule. Students prepare lesson plans and present them to the English language teacher or the university methodologist. At the end of all lessons delivered by the student teachers for the day, the lessons are discussed. All students, the university methodologist and the teacher take part in the discussion.

SB15201 Information and Communication Technologies and Work in Digital Environment**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Voinohovska, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:****Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications. *Spread sheets:* Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering. *Presentations:* New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

SB11050 English Children's Literature**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**Senior Lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages
tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg**Abstract:**

The main aim of the course is to provide students with a panoramic view on works by main representatives of English, American and other English speaking countries, who have had great impact on the world literature heritage, including children's literature.

Course content:

Introduction to children's literature. Scope, genres, history and methods of analyses. Development of the realistic novel as a new literary form: Daniel Defoe. Main representative of Augustinian prose. Main socio-cultural characteristics of the English Romanticism. Romanticism in the American literature. Washington Irving: interest in the American past and folklore. James Fenimore Cooper. Victorian England and its literature: general review and Charles Dickens in particular. Development and establishment of realism as a main literary method: Mark Twain. The naval exotic of the old England through the prism of parody. Loius Carroll: the literature of nonsense. The new aesthetics: Oscar Wilde. Tragedy and alienation in children's literature: James M. Barrie. Idealistic and unproblematic picture of childhood: A.A.Milne. New tendencies, genres and forms in the children's literature characteristic for the end of the XX and XXI c.

Teaching and assessment:

The interpretation of the lecture material is based on the latest trends and requirements of the theory of literature. The seminars are focused mainly on analytical reading of selected texts. The use of videos is recommended if relevant.

SB11051 German's Children Literature**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**

Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The main aim of the course is to provide students with a panoramic view on works by main representatives of German literature, who have had great impact on the world literature heritage, including children's literature.

Course content:

Introduction to children's literature. Scope, genres, history and methods of analyses. Main works of German authors of children's literature.

Teaching and assessment:

The interpretation of the lecture material is based on the latest trends and requirements of the theory of literature. The seminars are focused mainly on analytical reading of selected texts. The use of videos is recommended if relevant.

Weekly classes: 1lec+1sem+0labs+0ps+se**Type of exam:****SB11052 French Children's Literature****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The main aim of the course is to provide students with a panoramic view on works by main representatives of French literature, who have had great impact on the world literature heritage, including children's literature.

Course content:

Introduction to children's literature. Scope, genres, history and methods of analyses. Main works of French authors of children's literature.

Teaching and assessment:

The interpretation of the lecture material is based on the latest trends and requirements of the theory of literature. The seminars are focused mainly on analytical reading of selected texts. The use of videos is recommended if relevant.

Weekly classes: 1lec+1sem+0labs+0ps+se**Type of exam:**

SB11053 English 7**ECTS credits:** 3**Assessment:** exam**Departments involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Senior lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Senior lecturer Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg**Abstract:**

The basic aim of the course is to improve the level of students from B1 towards B1+ according to the Common European framework. By means of reading, listening, role-plays, debates, short presentations and problem-solving tasks the teacher aims to develop simultaneously all skills. For this course the emphasis is on speaking and widening the vocabulary range.

Course content:

The course comprises a wide range of topics, related to the course materials used and the interests and future communicative needs of students. These include people and their life in big cities, life styles, climate, seasons, shopping, clothes, shopping for food, future plans and arrangements, likes and dislikes, the world of children, the primary classroom and the language of the primary teacher. Grammar notions are deepened and expanded, semi-formal and formal registers are introduced at this stage.

Teaching and assessment:

Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note-taking and follow-ups, etc. Progress is monitored regularly and includes homework on a weekly basis. The overall grades are awarded on the basis of two essays, two written tests and a presentation, based on a topic, chosen by the students themselves.

SB11054 German 7**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at improving the level of students' knowledge of German and working towards achieving C1 level of language competence. The teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on preparing the students to take the end-of -semester formal exam and the state exam the components of which are in accordance with the requirements of the language competences for the level.

Course content:

The topics include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are expanded. Authentic texts on different topics are used.

Teaching and assessment:

Students have to work on a course project which they have to submit by the end of the semester. Students' progress is monitored on the basis of two compositions with an assessment emphasis on task achievement, style and register and positive effect on the reader, as well as two tests. There is a written exam at the end of the semester. The final grade is calculated in the following way: 90% x the exam grade+10% x the course project grade.

SB11055 French 7**ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at improving the level of students' knowledge of French and working towards achieving C1 level of language competence. The teacher aims to develop simultaneously all five skills – speaking in monologue and dialogue, writing, reading and listening. Emphasis is placed on preparing the students to take the end-of -semester formal exam and the state exam the components of which are in accordance with the requirements of the language competences for the level.

Course content:

The topics include describing appearance and personality, future plans and arrangements, terms and notions related to the methodology of foreign language teaching. Grammar notions are expanded. Authentic texts on different topics are used.

Teaching and assessment:

Students have to work on a course project which they have to submit by the end of the term. Students' progress is monitored on the basis of two compositions with an assessment emphasis on task achievement, style and register and positive effect on the reader, as well as two tests. There is a written exam at the end of the semester. The final grade is calculated in the following way: 90% x the exam grade+10% x the course project grade.

Weekly classes: 0lec+0sem+0labs+2ps+se**Type of exam:** written**SB14649 Reformation Pedagogy****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

This course's goal is to provide a system of ecological knowledge, necessary for the future young teachers who will teach Natural Sciences, such as *Man and Nature*, *Man and Society* and *Household Maintenance Skills* and Techniques. The lectures are structured according to the main ecological problems, connected with pollution of the natural areas – Atmosphere, Hydrosphere, etc. – reasons, consequences, prevention. The second accent concerning this structure falls on the protected nature areas – reserves, national and nature parks, protected places and nature sites. Built up this way, the content disposes other major - Foundations of Natural Sciences, uses the knowledge acquired in the field of Physics, Chemistry and Biology. On the other hand, this course is synchronized in time with the course in Methods of Teaching Man and Nature and helps with the course assignment in this course.

Course content:

Ecological factors of the environment, Ecological problems of the Earth's atmosphere, Hydrosphere, biological variety and ecological equilibrium, protected areas in Bulgaria, legal path for ecological actions.

Teaching and assessment:

The training of this course is accomplished through lectures. There is a certain number of points needed for obtaining semester certification. There are also exact criteria concerning the course assignment. The way of forming the final grade on the subject includes the results from the continuous assessment and the quality of the paper.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

SB14650 Extracurricular Work in the Primary School**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: evelikova@uni-ruse.bg

Assoc. Prof. Milena Panova Kostova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 453, E-mail: mpk@uni-ruse.bg**Abstract:**

The course deals with the acquisition of basic mathematical and logical rules, equivalencies and conclusions and their application when solving mathematical and logic problems and tasks. The aim is to stimulate students to use amusing mathematical activities in the primary school Mathematics classes. The course relies on knowledge acquired during the secondary school education.

Course content:

Arithmetic problems and quizzes. Logical tasks and sum problems for quick-wits. Old and new puzzles in the area of Geometry, etc.

Teaching and assessment:

The education is of theoretical and practical character. Students should acquire the basic logical methods for solving amusing mathematical problems. They work on a presentation on a given topic from the material covered.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**SB11058 Fun and Tourist Games for Students from First to Fourth Grade****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Dept. of Physical Education and Sports

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Abstract:**

The course's purpose is to enhance and systematize students' knowledge of common pedagogical, psychological and methodological courses, with knowledge how to increase the physical stamina of children's organism and their physical abilities in natural surroundings by means of interesting tourist games.

Course content:

Contemporary tendency for complex formation of children's personality. Development of the concept for healthy children by means of games in nature. Common characteristic of interesting tourist games, special features, content and method of conducting. Basic forms of work in physical culture and sport with opportunities to play games.

Teaching and assessment:

The education is acquired through a conventional lecture course in accordance to the requirements for effective training. The final grade is formed as an average grade. The essay gives an opportunity to include all the problematic areas of physical education and search for effective games.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written

SB11059 English Communication Skills**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Weekly classes:** 1lec+0sem+0labs+0ps**Type of exam:** written**Abstract:**

The course content is oriented towards the acquisition of systematic knowledge about the academic life, the language of academic communication as well as the acquisition of basic linguistic terms of the English language. The training places an emphasis on the development of students' skills for: successful English language communication in an academic context; effective note taking; understanding of academic written texts and spoken interaction content; extracting information from different sources; writing well-structured and well-supported academic texts.

Course content:

Academic Writing Genres. Developing Paragraphs. Characteristic Features of the Narrative, Descriptive and Definition Paragraphs. Text Coherence and Cohesion – Linguistic Means. The Narrative Essay. The Descriptive Essay. The Argumentative Essay. Retelling – Specific Features. Paraphrasing. Note taking. Developing an Outline. Quoting. Summarizing. Writing a Conclusion. Referencing. Developing a Reference List.

Teaching and assessment:

The course is delivered in the form of lectures in the target language which include practical tasks that aim to increase the L2 communicative skills of students. The continuous assessment includes two tests on topics discussed during the lectures. Students have to write individually three essays (narrative, descriptive and argumentative), which form 30% of the final mark for the semester.

The final mark is formed on the basis of the results from the two tests and the marks on the three essays.

SB11060 British Studies**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Weekly classes:** 1lec+0sem+0labs+0ps**Type of exam:** written**Abstract:**

The course aims at developing and enriching the knowledge of students about the foreign culture, the culture of communication in English and their general linguistic competence through the use of topics about the historic and cultural development of the United Kingdom, as well as about the socio-cultural aspects of life in the country. The acquisition of the course content involves the application of modern methods of interpretation of the historical and cultural aspects of development of the UK in comparison with the Bulgarian history, culture, customs and traditions, which increases the awareness of students about otherness and which contributes to the development of their national identity.

Course content:

Cultural Studies and the Teaching and Learning of a Foreign Language. State and Political Structure. Modern Political System of the British Isles. Regional Division. Geographical Map of the British Isles. Brief Historical Overview of the British Isles. Structure of British Society. The Educational Traditions. British National Character. Everyday Life. Customs and Traditions.

Teaching and assessment:

The course is delivered in the form of lectures in the target language. The lectures are interactive and rely on the active participation of students. The final mark is formed on the basis of the results from the two tests and the marks on the three essays. It is average of the marks on the two tests.

SB11061 Pre-Diploma Teaching Practice**ECTS credits:** 11**Weekly classes:** 0lec+0sem+0labs+11ps**Assessment:** exam**Type of exam:** oral**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Abstract:**

The goal of the pre-diploma teaching practice is to provide students with an extended period of teaching in the school (from 1st to 4th grade). So they have the opportunity to put into practice their theoretical and methodological knowledge. Students deliver the lessons in accordance with the class schedule for the week. While doing this they are supervised by the class teacher. Students conduct lessons observed and supported by leading teachers of the class.

Course contents: Students spend a whole day in the primary school where they deliver the lessons for the day of the specific class with which they work. Students take part in the organization and implementation of extracurricular activities of the class – festivals, sport events, etc..

Teaching and Assessment: During the Pre-Diploma Teaching Practice the university methodologists observe and evaluate the lessons delivered by the students in the primary school. The university methodologists write the grade of each observed lesson in the Students Portfolio. After the observation of the lesson the methodologist gives his/her feedback to the student in the lesson discussion session and gives the reasons for the respective grade. The final grade is calculated by the methodologist who is the Chair of the State Examination Board as an average of the grades given by the different methodologists.

S03914 Comparative Education**ECTS credits:** 3**Weekly classes:** 3lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasielva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg

Abstract: The course aims at familiarizing students with the history of comparative education as a scientific direction with a great practical significance; it also explores issues about the European dimensions of education.

Course content: History of Comparative Education In Bulgaria; Theory and Methodology of Comparative Education; Structure and Contents of Comparative Education; Educational Systems in Bulgaria, The USA, Canada, France, Germany, Russia, Turkey, Poland, Austria, Japan, Australia, China; Comparison of the Aims, Finance, Management, Structural Patterns of the Educational Systems and the Teacher Training Programs in Different Countries; The European Union and the Education in Europe; The Educational Systems in the Countries- Members of the European Union; Integrated Training of Pre-School and Primary School Teachers.

Teaching and assessment: The course is comprised of lectures designed to reveal the comparative patterns in the structures of the different educational systems. One of the learning outcomes of the course is to develop in students an ability to put theory into practice; therefore, students are given individual course assignments for a comparative study of the general educational systems of at least two countries. The assignments are assessed and a written test is administered at the end of the semester. The final grade is an average of the grade from the written test and the result from the assignment.

S03915 Hygiene and Health Education**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The aim of the course in School Hygiene and Health Education is to introduce students to the contemporary tendencies and advances in the study of the human health and health education in school.

Course content:

The course examines such topics as subject matter and methods of study of Health Education; historical survey. Special attention is drawn to the global and regional problems in the result of the pollution. Ecology and school. Physical development and activity. The most common diseases in early age.

Teaching and assessment:

The course is taught through lectures. Lectures are designed to introduce students to new ideas and to provide a model for further analysis.

The theoretical assignment are intended in order students to learn how to prevent children's diseases caused by poor hygiene.

Weekly classes:3lec+0sem+0labs+0ps**Type of exam:** written**S01430 Individual Preparation for Graduation****ECTS credits:** 4**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

All lecturers who are supervisors of Bachelor theses, as well as those whose courses are included in the syllabus for the state exams.

Abstract:

Familiarizing students with conspectus for state examinations included as completing the procedures for the specialty; familiarizing students with the technology of the State examinations and technology elaboration and presentation of a thesis.

Course content:

Selection of thesis and scientific advisor. Stages of development. Literature. Shaping. Presentation.

Weekly classes:0lec+0sem+0labs+0ps**Type of exam:**

S00534 State Written Exam in a Foreign Language**ECTS credits:** 5**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language Literature and Art
tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bgSenior Lecturer Romyana Ivanova Milanova, MA, Department of Foreign Languages
tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bgSenior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages
tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The state examination is completed the procedures for Bachelor in Primary School Education and Foreign Language. It takes place in writing, to enable students to demonstrate their communicative skills in comprehension, writing by dictation and compilation text.

Course content:

State written exam in a foreign language is a test.

Teaching and assessment:

The Department of Foreign Languages provides the organization for preparation and conduct of the State exam.

Weekly classes:0lec+0sem+0labs+0ps**Type of exam:****S03919 State Written Exam in Pedagogy, Psychology and Methods of Instruction at Primary School****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**Assoc. Prof. Sonia Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel: 082 / 888 544, E-mail: sonya@uni-ruse.bg

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 752; E-mail: dalipieva@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgAssoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bgPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 832, E-mail: vtradeva@uni-ruse.bgPr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 88 225, E-mail: isilieva@uni-ruse.bg**Abstract:** The state examination is complete the procedures for the training of students in the undergraduate programme in *Primary School Education and a Foreign Language*. It allows students who graduate to present their knowledge in the subjects of pedagogical, psychological and methodological spectrum included in the curriculum during the semester learning. It developed two questions for the state exam.**Course content:** The state exam includes: a syllabus comprising of 40 questions in the fields of Pedagogy, Psychology and Methodology summarizing courses from the undergraduate study programme.**Teaching and assessment:**

Students sit a state exam at the appointed State Board of Examiners.

S01486 Bachelor Thesis Defence in Pedagogy, Psychology and Methods of Instruction**ECTS credits:** 5**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Pedagogy, Psychology and History

Abstract:

The Bachelor Thesis is developed independently by the students under the supervision of a university lecturer. The aim of the Bachelor Thesis is to give students an opportunity to demonstrate the knowledge and competences acquired during the study. Students are also given the opportunity to demonstrate their creativity in the development of the Bachelor Thesis and to present this thesis successfully at the State Examination Board.

Course contents:

The Bachelor Thesis explores a specific topic or an area of the compulsory courses studied during the undergraduate training.

Teaching and Assessment:

The Department of Pedagogy, Psychology and History provides:

- the overall organization of the collection, confirmation and the announcement of the Bachelor Thesis topics;
- the allocation of the Bachelor Thesis topics to individual students and the appointment of their supervisors;
- the supervision, the preparation of the evaluation review and the presentation of the Bachelor Thesis

The supervisors give consultations of the students every week. Then they monitor the performance of the students on the given tasks. Students present their Bachelor Thesis to a State Examination Board at the end of their final year at the university.

**UNDERGRADUATE
STUDIES
IN
PRE-SCHOOL
AND
PRIMARY SCHOOL
EDUCATION**

PROFESSIONAL STANDARDS
OF A BACHELOR IN PRE-SCHOOL AND PRIMARY SCHOOL EDUCATION

Degree Programme: **Pre-school and Primary School Education**

Educational Degree: **Bachelor**

Professional Qualification: **Primary School Teacher, Kindergarten Teacher**

Term of education: **4 years (8 terms)**

The main goal of the **Pre-school and Primary School Education** Bachelor degree is to train highly qualified specialists who will acquire the competence to educate children of 3 to 6 years of age and those of the next age group – 6 to 10.

The quality of training of students doing the Pre-school and Primary School Education Bachelor degree is assured through:

- The use of modern laboratories and computer facilities;
- The availability of highly qualified academic staff;
- The courses included in the curriculum which fall into the following categories:
 - **fundamental courses:** History of Pedagogy and Bulgarian Education, Philosophy, Literary Theory, Phonetics and Lexicology, Age Pedagogy, Morphology and Syntax, Mathematics, Bulgarian History and some others.
 - **core courses:** Pedagogy of Early Childhood Education, Research Seminar on Pedagogical Communication, Theory of Education, Didactics, General Psychology, Basic Theory of Music, Introduction to Primary School Education, Basics of Natural Sciences and some others.
 - **highly specialised courses:** Pedagogy and Technology of the Game, Methodology of Teaching Mathematics to Young Children, Pedagogy of Physical Activities and Sport, Pedagogy of the Interaction: Child – Environment, Organising the work in Preparatory groups and in Preparatory classes, Basic Aspects of Visual Literacy, Musical Instrument, Methodology of Teaching Music, Theory and Methodology of Teaching Fine Arts, Teaching and Learning Mathematics and some others.

The Bachelor that has graduated in Pre-school and Primary School Education has to be able to: implement educational and scientific methods at pre-schools and primary schools; implement diagnostic-prognostic and consulting activities with children from pre-school and primary school age; interact and cooperate with family, public and state institutions, non-governmental organisations, media, etc.; master and use special methods, techniques, ways and means for conducting educational and work, in-class and extracurricular activities of children at Primary school; form and develop civil behaviour of children and students; encourage and stimulate the development of retarded children or children in unequal status; work in an intercultural environment and accomplish an intercultural dialogue.

A Bachelor in Pre-school and Primary School Education **can work as:**

- Primary Teacher;
- Pre-school Teacher;
- Pedagogic Advisor;
- Home Teacher;
- Headmaster of different types of schools;
- Expert in other activities connected with a university degree.

CURRICULUM
OF THE DEGREE COURSE IN
PRE-SCHOOL AND PRIMARY SCHOOL EDUCATION

(THE SECOND, THIRD AND FOURTH YEAR STUDENTS ARE TRAINED FOLLOWING THIS CURRICULUM)

First year

Code	First term	ECTS	Code	Second term	ECTS
SB14535	History of Pedagogy and Bulgarian Education	5	S01490	Introduction to Primary School Education	3
S00430	Theory of Education	4	S02404	Literary Theory	3
S00840	Didactics	4	S02405	Phonetics and Lexicology	4
SB13793	General Linguistics	3	SB14551	Methods of Music Education in Pre-school	6
SB14536	General Psychology	3	SB14552	Fundamentals of Visual Literacy	3
S02406	Basic Theory of Music	2	SB14553	Methods of Teaching Elementary Mathematical Concepts	7
SB14537	Pre-school Pedagogy	6	S02022	Pedagogical Communication	1
SB14538	Inclusive Education	2	SB15200	Information and Communication Technologies in Education and Work in a Digital Environment	2
			Elective courses (students elect a course)		
			S01979	Musical Instrument	1
			S01540	Pedagogy of Family Education	1
			S01509	Conflict Management and Resolution	1
			S01521	Group Education	1
			SB14554	Development of Artistic Abilities with the Instruments of Music	1
Total for the term:		30	Total for the term:		30
S00072	Sports	1	S00072	Sports	1

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
SB14555	Age Psychology	4	SB14558	Methods of Teaching Physical Activities and Sport	2
S03868	Morphology and Syntax	4	S03879	Theory and Methods of Teaching Art in the Primary School	6
SB14556	Mathematics – Part 1 and Part 2	6	S03880	Methods of Teaching Mathematics	9
S03870	Methods of Teaching Music	4	SB14588	Methodology of Language Acquisition and Development of Speech	2
SB14557	Methods of Teaching Art in the Kindergarten	7	S03882	Lesson Observation in the Kindergarten	2
SB14558	Methods of Teaching Physical Activities and Sport	2	S03883	Foundations of Natural Sciences	3
SB14559	Methods of Teaching Nature Studies	2	S03884	History of Bulgaria	3
			SB14559	Methods of Teaching Nature Studies	3

<i>Elective courses (students elect a course)</i>					
S01979	Musical Instrument	1			
SB14560	Children's Rights	1			
SB14561	Pedagogical Ethics	1			
SB14562	Aesthetics	1			
SB14563	Interethnic Culture of Interaction in Kindergarten and Primary School	1			
		Total for the term:	30		
S00072	Sports	1	S00072	Sports	1

Third year

<i>Code</i>	<i>Fifth term</i>	<i>ECTS</i>	<i>Code</i>	<i>Sixth term</i>	<i>ECTS</i>
SB10932	Methods of Teaching Bulgarian Language and Literature	9	S03896	Theory and Methods of Teaching Sport and Physical Activity	7
S03887	Methods of Teaching Man and Society	4	S03897	Children's Literature	6
S03888	Methods of Teaching Man and Nature	3	SB14577	Pedagogical Psychology	3
S03889	Lesson Observation in the Primary School	2	SB13719	The Art of Speech and Performance	2
SB14565	Methodology of Language Acquisition and Development of Speech	4	S03900	Teaching Practice in the Kindergarten	2
SB14566	Methods of Teaching Design and Technology in the Kindergarten	4	S03901	Pedagogy and Technology of the Game	6
<i>Elective courses (students elect a course)</i>			<i>Elective courses (students elect a course)</i>		
SB14567	Development of Creative Abilities in Pre-school and Primary School Age	2	S03902	Pedagogy of Early Childhood Education	2
SB14568	Practical Techniques for Creativity in Kindergarten and Primary School	2	S00659	Study of the Physical Development and Efficiency in Early School Age	2
SB14569	Pedagogy of Communicative Skills	2	SB14578	Extracurricular Work in the Primary School	2
SB14570	Intercultural Education and Socialization of Children from Different Ethnic Background	2	SB14579	Reformation Pedagogy	2
SB14571	Acquisition of Bulgarian Language by Bilingual Children and Ecological Problems	2	SB14095	Integrated Art Techniques for Children	2
<i>Elective courses (students elect a course)</i>			<i>Elective courses (students elect a course)</i>		
SB14572	Children Folklore	2	SB14580	History of the Ethnic and Religious Communities in Bulgaria	2
SB14573	Pedagogical Rhetoric	2	SB14581	Religion and Education	2
SB14574	Methods of Instruction in Reading and Writing Skills to Young Children	2	S00615	Principles of Christianity	2
SB14575	Coping with Disasters and First Aid	2	S00605	History of Music	2
SB14572	Project-based Education in the Primary School	2			
		Total for the term:	30		
S00072	Sports	1	S00072	Sports	1

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
SB14582	Theory and Methods of Teaching Design and Technology	7	S03859	Comparative Education	3
SB10934	Pedagogical Diagnostics	3	S01409	Hygiene and Health Education	2
SB10935	Culture of Speech and Behaviour	4	S01429	Pre-diploma Pedagogical Practice	11
S03952	Foundations of Special Education	3	S01430	Self-Preparation for Graduation	4
SB10936	Teaching Practice in the Primary School	3	Graduation (students elect one of the two graduation procedures)		
SB10937	Puppet Theatre Performing Art	2	Graduation Procedure – Option 1		
SB10938	Organising the Work in Preparatory Groups and in Preparatory Classes	3	SB10944	State Written Exam in Pedagogy and Psychology	4
SB15201	Information and CommunicatioTechnologies in Education and Work in a Digital Environment	3	S03918	State Written Exam in Methods of Instruction in Kindergarden and Primary School	4
			SB10945	State Practical Exam	2
Elective courses (students elect a course)			Graduation Procedure – Option 2		
SB14583	Role Plays	2	SB10946	Bachelor Thesis Defence in Pedagogy, Psychology and Methods of Instruction in	8
SB14584	Fun and Tourist Games for Students from 1 st to 4 th Grade	2		State Practical Exam	2
SB14585	Educative Work of Class Teachers	2	SB10945		
SB14586	Working with Children of Unequal Status	2			
SB14587	Modern Technologies of Educational Work in the Wholeday Organisation of the Educational Process	2			
Total for the semester:		30	Total for the semester:		30
S00072	Sports	1	S00072	Sports	1

Total for the course of study: 240 ECTS credits

SB14535 History of Pedagogy and Bulgarian Education**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The aim of the course is to familiarize students with the objective factors, conditions and tendencies in the development of pedagogical theory and practice during different historical periods and in different socio-economic conditions.

Course content:

The course covers topics related to the history and development of the most significant pedagogical ideas, theories, forms and means of teaching; systems of up-bringing and teaching from the pre-class society to present. There are topics dedicated to the life and work of eminent thinkers and pedagogues as Ian Amos Comenski, John Lock, Jean Jack Rousso, J.H.Pestalozzi, C.D.Ushinski, A.S.Macarenco. The development of education and pedagogical thought in Bulgaria is also examined.

Teaching and assessment:

The lectures involve larger groups of students from the same degree programe and the seminars involve students from a particular group. During the seminars active methods of teaching are used, such as making tests, discussions and discussing each task. For homework assignment every student works on a task of his/her choice or on another topic. Only students who have prepared and submitted their course assignment according to the requirements can be admitted to the final exam. The final assessment is based on the results from the test that includes all the material studied, a written answer to a given question, and evaluation of the course assignment.

S00430 Theory of Education**ECTS credits:** 4**Assessment:** exam**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The objective of the course is to present, in a systematic way, the problems of the theory of education as part of General Pedagogy. A starting point of teaching is to consider upbringing as a kind of social reality and a kind of intercourse relation as well as an object of the theory of education. The course accentuates on the models of up-bringing, on the specific conceptual apparatus of the subject and the up-bringing as a pedagogical activity and an active process with its complicated relations, contradictions and technologies.

Course content:

Character of upbringing as a socio-pedagogical phenomenon, its functions and structural components; Approaches, principles, methods, means, forms and factors for successful education; Relations between content and aim of the educational process, between preventive and re-educative activities,, prognosis and leading of educational process.

Teaching and assessment:

The lecture course comprises traditional and euristic ways of presenting new information. The seminar classes involve case studies and teacher-led discussions. Students should do reading before each seminar. The exam involves answering two questions with a different level of difficulty. The course task is been given through the third studing week from the term. They aer given at the end of the semester. They and their participation in work during the term are determining the receiving of counter sign. Their work in contentive meaning and their presentation at the exam are basing the final assessment.

S00840 Didactics

ECTS credits: 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

Didactics has a fundamental role for the professional development of students. The course aims at introducing students to the subject matter in a systematic way; revealing the most topical problems in the development of Didactics; analysing the procedural and functional character of education.

Course content:

Scientific status of Didactics; Character of the teaching process; Principles of teaching; Methods of Teaching; Systems of organizing the teaching process; Common teaching problems; Personalisation and differentiation of education; Tutoring; Work with poor and talented pupils.

Teaching and assessment:

The course is taught through a combination of lectures and seminars. At seminars the dialogue is widely used; relevant articles on the topics included in the syllabus are discussed. Active participation is encouraged by awarding students additional points.

Weekly classes: 2lec+1sem+0labs+0ps+0,5se**Type of exam:** written**SB13793 General Linguistics****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Tsvetelina Kirilova Harakchiyska, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: tharakchiyska@uni-ruse.bg**Abstract:**

The course aims at acquainting students with the main problems related to the nature of language, its form and functions, while at the same time it also highlights the theoretical platforms and methodological frameworks used by the different linguistic schools when defining and describing the different aspects of the language system and structure. The course covers topics related to the origin and the main stages of language development; the sign character of language, the link between language and speech, the relationship between language and thought and language and society; the system of language and the functions of each language element; classifications of languages; the link between language and the other non-linguistic systems.

Course content:

History of Linguistics; Nature and functions of language; Language and society; Language and thought and their correlation; Aspects and levels of study of language and speech; Processes and laws guiding language changes and development; Classification of languages: genealogical, morphological, etc; Languages on the Balkan Peninsula; International natural and artificial languages; Intralinguistics: Phonetics, Lexicology, Morphology, Syntax, Text linguistics, Stylistics; Extra Linguistics: Sociolinguistics, Psycholinguistics, etc.

Teaching and assessment:

The course content is delivered in the form of lectures. Students prepare and submit a seminal essay on a topic given by the course tutor at the start of the semester. The seminal essay has to be up to 10 pages. Students sit a written exam on a syllabus covering all the course topics.

SB14536 General Psychology**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Course content:**

The aim of the course in General Psychology is to introduce students to the contemporary tendencies and advances in the study of human mental processes. The course examines such topics as subject matter and methods of study of Psychology; historical survey; current problems of the science, etc. Special attention is drawn to the personal and active approach in psychology, the structure of personality, self-regulative mechanisms, reflection and intercourse relations. It explores the special features of the psychic process, qualities and states of personality, the progress of the intellectual and the emotional part of one's character.

Teaching and assessment:

The course comprises of lectures and seminars. The lectures are designed to introduce students to new ideas and to provide a model for further analysis. At the seminars students are encouraged to participate in discussions.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written**S02406 Basic Theory of Music****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science
tel.: 0886 60 75 81, E-mail: yapovak@abv.bgPr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course of Basic Theory of Music aims at developing the main musical abilities in the students through different musical activities. It builds up a system of musical and theoretical knowledge, skills and habits of perception, comprehending and reproducing the musical means of expression. It also forms an aesthetic criteria and taste, musical and emotional response, knowledge and skills for creative and educational work with children.

Course content:

Special features of musical art. Musical means of expression; Major and minor tonality to 4 signs. Tempo and dynamics in music; Accords and transposing, main manual techniques: Elements of musical form.

Teaching and assessment:

Each seminar follows immediately after the lecture and thus creates a good bond between theory and its practical application. Tasks for independent work are given, which aim at mastering the main theoretical questions.

Three one-hour tests are administered during the seminars. The final grade is an average from the three test grades.

Weekly classes: 1lec+0sem+0labs+1ps**Type of exam:** written

SB14537 Pre-school Pedagogy**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg**Abstract:**

The course aims to introduce students into the discipline and the programme. To familiarize them with the specific characteristics of preschool education and public education, to clarify the characteristics of the formulations and methods of working with preschool children, the pedagogical interaction between the child and adults and between children in the group, thus formed in defined them competences for future teachers.

Course content:

The course contains theoretical elucidation of the goals, objectives, methods and forms of pedagogical interaction in kindergarten, conditions and resources to develop children's abilities to introduce the main activities carried children from preschool to kindergarten, to clarify the specific characteristics of organizing and conducting educational work in the preparatory group for school, getting acquainted with modern teaching technology to work with 3-7 year old children.

Teaching and assessment:

Teaching basic training allows students to be realized in the course of lectures. Through seminars and workshops develop and improve practical skills for carrying out various activities in kindergarten for the implementation of pedagogical interaction with children, organizing the entire pedagogical system in the group, etc. The lectures are frontally with the whole group using modern technology to present. During the lectures and exercises use video, multimedia, active teaching methods - preparation and completion of tests, role plays and discussion case studies. Combining individual and group modes of work makes the acquisition of the material possible.

SB14538 Inclusive Education**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Yuliya Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The aim of the discipline is to understand and understand the philosophy, the whole process, the steps, the participants, their roles, the effectiveness and the good examples of interaction.

Course content:

Inclusive education is access to school, quality learning and guaranteed participation of absolutely all children. In order for this to happen, it is necessary for the general education institutions to be able to accept and meet the needs of not only the child with special needs but also every difference and not difference. Because inclusion does not only concern the education of children with disabilities, but quality education for all children.

Teaching and assessment:

The lecture course includes modules divided by hours. Students receive theoretical knowledge of the topics as well as practical experience by observing and commenting on good practices. The expected results are in the continuum of reach between all stakeholders in the process of inclusion. Inclusion and development of innovative practices in inclusive education, building and strengthening the capacity of learning communities to create an inclusive environment. The vision of how to organize training and mentoring on topics related to inclusive education, global education, child protection and child participation, policymaking and strategic documents in the field of education, information campaigns and inclusive education studies.

S01490 Introduction to Primary School Education**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 219, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The course examines the characteristic features of the teaching and learning processes in primary schools and seeks to reveal the particular place of Primary School Education in the general system of pedagogical sciences. Students should acquire knowledge about the nature and tasks of primary school education and gain appreciation of the practical demands within the vocation.

Course content:

Scientific status of pedagogy; Primary School Education in the system of pedagogical sciences; Methods of scientific and pedagogical research; Bulgarian system of education; History of the primary school education around the world and in Bulgaria; State and tendencies in the development of primary education.

Teaching and assessment:

The specific character of the topics determines the very direction of the lecture course towards the general problems of pedagogy and their specific reflection in the primary school education. At seminars students should prepare summaries on the main problems and questions associated with the topics from the syllabus. The course is evaluated through a formal exam that implies answering a question in writing.

Weekly classes: 2lec+0sem+0labs+0ps**Type of exam:** written**S02404 Literary Theory****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The subject matter of the course in Literary Theory is of a general character. The course aims at enhancing the reading competence of students and their appreciation of literature as an art of speech and a specific social system; building up the students' skills for perception, analysis and interpretation of the literary facts and phenomena with an emphasis on the specific features of literary communication. The course has initial connections with the courses Children's Literature and Methods of Teaching Bulgarian Language and Literature.

Course content:

Inception, perception and features of the literary text; Structure of the literary text; Composition of the literary work; Genre, genre classification, and peculiarity of a work of literature; Features of the lyrical work; Semantics of the literary work; Language and style of fiction; Basic aesthetic patterns of the literary understanding of reality; Analysis and interpretation of the literary text.

Teaching and assessment:

The course is taught by lectures. Students prepare a course assignment on a paper. Two tests are given on the material studied. The final grade is formed after a written exam.

Weekly classes: 2lec+0sem+0labs+0ps+se**Type of exam:** written

S02405 Phonetics and Lexicology**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg**Abstract:**

The course aims at introducing students to:

- 1) the science of speech, which integrates knowledge about the physiological processes of the production and perception of speech, the acoustic and articulation features of verbal sounds and the super-segmental organisation of speech.
- 2) the science of the lexical system of the Bulgarian language - gnoseologic, semiological and semantic features of the lexical units, their use in the different styles of speech;
- 3) methods and means of phonetic and lexical analysis.

Course content:

Object of Study and Tasks of Phonetics and Lexicology. Acoustic, Articulatory and Functional Aspects of the Sound. Segmental and Supersegmental System of Modern Bulgarian Language. Nature and Characteristics of the Word as a Linguistic Sign. Semantic Variety of the Word. Systematic Lexical Relations. Characteristics of the Bulgarian Vocabulary. Structure, Classification and Characteristics of Set Phrases. Subject and Tasks of Bulgarian Lexicography.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Two continuous assessment tests are administered during the term. The final exam is written.

Weekly classes: 2lec+1sem+0labs+0ps**Type of exam:** written**SB14551 Methods of Music Educaion in Pre-school****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sevdalina Ilieva Dimitrova, Dept. of Education Sciences, Department of Information, Qualification and Lifelong Learning – Varna

tel.: 052 / 301 241, ext. 128, E-mail: sevdalina.dimitrova1@gmail.com

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course presents the theoretical and methodological foundations of musical education, the pedagogical and psychological specificity of musical activities, the development of artistic habits and creativity in all musical activities included in the pre-primary school music classes. The course also includes the methodological foundations of the aesthetic and musical education in kindergarten and the specificity, methods, forms and means of musical education.

Course content:

The course content provides knowledge about the psychological foundations of music education, the theoretical basis and the characteristics of musical abilities and musical skills. The specific characteristics, meaning, basic tasks and methods of each music activity are presented and analyzed.

Teaching and assessment:

The course content is delivered in the form of lectures and seminars. The lectures present the theoretical knowledge on the basic topics covered in the course. The seminars are attended by all students. Students need to come prepared for the seminars.

SB14552 Fundamentals of Visual Literacy**ECTS credits:** 3**Weekly classes:** 0l+2sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Departments involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The aim of the course is to acquaint students with basic concepts in the theory of fine arts, with its most general characterization and classification and to allow them to develop fundamental knowledge of the theory of fine art. The course content focuses on the specific features of the main types of fine arts and their genres, the characteristics of the materials used in these genres, and the specific types of expression in them. Special attention is placed also on important problems related to the correct composition in an artistic work, the harmony in combining its different elements, the principles of image construction, the optimum organization of space in the canvas, etc.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

Nature of Fine arts. Types of Fine Arts. Painting – Types and Specific Features. Sculpture – Types, Genres and Materials. Graphics – Types of Printing. Materials and Techniques. Decorative and Applied Arts – Types. Stylistic Devices and Means of Expression. Composition – Types and Means of Expression. Colour in the Fine arts – Types. Problems with the Shape Outlining in Arts. Colour Awareness. Perspective. Plastic Anatomy.

Teaching and assessment:

After the students complete each of the practical tasks assigned to them, they all participate in a discussion with the course tutor in which the overall performance of the group is discussed, which is followed by a discussion of the results and achievement of each student. The final course grade is formed as an arithmetic mean of all grades during the practical sessions.

SB14553 Methods of Teaching Elementary Mathematical Concepts**ECTS credits:** 7**Weekly classes:** 2lec+0sem+0labs+2ps+ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The course aims at introducing students to the tendencies and perspectives of teaching and learning Mathematics in kindergartens by revealing the current methodological advances and the results of contemporary psychological and pedagogical studies. Students will be acquainted with the contents of the Mathematics curriculum and the possibilities it offers for the intellectual development of the child. We will examine the mathematical notions and ideas that should be acquired by kindergarten children and the ways of teaching them by means of games and exercises.

Course content:

Directions for improvement and development of the mathematical activity of children at primary school age. Forming quantitative ideas and concepts. Development of logical thought(classification, series and sets). Forming the concepts of mathematical quantities and skills for measuring them. Elementary geometrical knowledge. Orientation in space and time. Analysis of the curricula for kindergartens. Diagnostic procedures for assessment of mathematical knowledge of children from 3 to 7 years of age.

Teaching and assessment:

The course comprises of a combination of lectures and seminars. Seminars are designed to complement and reinforce the notions introduced at lectures; class work involves discussions, doing tests, devising lesson plans, analysing and discussing lessons, analysing of school documentation. The exam is a written test.

S02022 Pedagogical Communication**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 219, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The basic objectives and tasks of the research seminar are directed towards providing students with basic notions about the democratisation and humanising of the pedagogical process, which presupposes an active pedagogical interaction between teachers and pupils and the creation of a sense of equality between them. Hence, the future teachers should become aware of the elements of the pedagogical communication and acquire knowledge and skills for a meaningful and effective interaction with the children.

Course content:

The Social Nature of Communication. Communication as a Factor for Personality Development. Nature and Issues of Pedagogical Communication. Dialogical Nature of Communication. Functions of Communication in Education. Main Types of Communication. Organization and Management of the Interaction of Pupils in during Team Work. Characteristics of the Verbal and Non-verbal Communication of the Teacher. Characteristics of the Communication of Children of Different Ages.

Teaching and assessment:

The seminar has a practical and research orientation that underlies the structure of the lectures and the exam procedure. Students are acquainted with multiple examples and facts from the school practice and the work of notable researchers from Bulgaria and the world.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**SB15200 Information and Communication Technologies in Education and Work in Digital Environment****ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Voinohovska, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications.

Spread sheets: Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering.

Presentations: New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

S01979 Musical Instrument**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and EducationPr. Assist. Prof. Petya Ivanova Stefanova, MA, PhD, Dept. of Bulgarian Language, Literature and Art,
tel.: + 359 82/ 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The classes in accordion aim at preparing students for using the instrument during musical classes at the primary school. They are designed to give the needed minimum of knowledge and skills for playing songs, folk dancing pieces, children musical pieces which are included in the repertoire at schools. The instruction in the musical instrument assists the work with solfeggio too, elementary theory of music and all other branches of music, studied by students.

Course content:

Structure and parts of an piano of the left and right hand. Exercises in different note durations. Scales until 2 signs- major and minor. Playing on melodies with an accompaniment. Specifics of the minor tones. Minor tones with two signs – natural, harmonic and melodic kind. Transportation and exercises for pre-singing. Technical exercises on semiquavers. Rhythmic figures on the bases of semiquavers. Rhythmical beats- 3/8 and 6/8. Irregular beats – 5/8, 7/8, 8/8, 9/8. Learning art repertoire. Playing in group.

Teaching and assessment:

The instruction is individual. In the classes the lector gives theoretical and methodical directions for the material which have been learned. The classes also involve individual study and practice at home, which facilitate the complete mastering of the knowledge acquired during classes.

Weekly classes: 0lec+0sem+0labs+1ps**Type of exam:****S01540 Pedagogy of Family Education****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

Teaching is done by using traditional, heuristic and game methods. By analysing extracts from films and books or by participating in improvised family games students, receive an opportunity to get into the problems of family relations. Thus, we aim at stimulating their feelings, activating their imagination and strengthening their heuristic orientation. The cognitive method of acquiring knowledge has a primary importance throughout the course.

Course content:

Students completing this unit will be able to interpret critically data and information concerning family relations. They will gain an insight into the latest achievements of family therapy, which should stimulate them to think analytically about family problems. Last but not least, they are motivated to develop positive attitudes and conceptions and to work towards developing normal relations in the family.

Teaching and assessment:

The continuous assessment involves students writing an essay on a topic included in the syllabus. They are expected to approach the problem in a creative and original way without reproducing memorized constructions.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

S01509 Conflict Management and Resolution**ECTS credits:** 1**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Science and Education;**Lectures:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The purpose of the course is students to assimilate systematic knowledge about the conflict as a phenomenon and also to be introduced to the today's methods about its avoidance and solution. This knowledge will let the students acquire new knowledge about the conflict as an universal process as well as give meaning to the knowledge acquired though the whole master's course from the point of view of this science and use it in practice, too.

Course content:

The main themes, included in the contents are: Conflict as a psychological concept; Dialectical theory about conflict; Diagnostics of conflict; Types of conflicts; Development of conflict; Styles of conflict behavior – strategies and methods; Running of conflict; Solution of conflict; Pyramid of conflict; Principles of avoidance of conflict; Technology for controlling of conflicts in pedagogical interaction; Building models of pedagogical conflict situations.

Teaching and assessment:

The continuous assessment includes a test which covers questions from all studied topics.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**S01521 Group Training****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

This course aims at acquainting the students with the basic models and strategies of pedagogical interaction and setting up an ability for communication at certain levels of pedagogical work.

Course content:

Information-psychological aspects of communication in pedagogical process. Characteristics. Pedagogical content of communicative instruments. Speech and communicative behaviour. Dimensions of teacher's profession. Characteristics and interactive education. Techniques for organization of the interaction in class. Approaches of setting up personal and social skills in students. Basic social skills.

Teaching and assessment:

Students get acquainted with the theoretical and practical foundations for developing social and personal skills characteristic of the teacher's profession. Students work in groups. Interactive methods are used to set up ideas and skills for productive pedagogical interaction. The course ends with the submission of a paper (based on one of the topics given above).

SB14554 Development of Artistic Abilities with the Instruments of Music**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science
tel.: 0886 60 75 81, E-mail: yapovak@abv.bgPr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course aims at developing and enriching the creativity of students with the help of the means of music through the use of contemporary works and research papers on similar topics. It covers a wide range of topics that focus on the main theoretical issues and enrich the context of the problems discussed in areas such as musical psychology, psychophysiology, perception and influence of music, sound and musical expressions, communicative potential of the sound and music and a syncretic approach in the musical and creative thinking.

Course content:

Music as Universal Language for Communication. Methodological System of Music Education. Analysis and Discussion of Different Types of Music in Relation to their Educational Effect. Music and the Art of Speaking. Multi-aspectual Influence of Music. The Relation between Sound, Colour and Speech. Musical and Artistic Approaches for Working with a Literary Text. Social and Esthetic Functions of Dance. The Folklore Dances. Musical Instruments as Non-verbal Means of Communication. Child Musical Genres as a Stimulus for Developing Children's Creative Potential.

Teaching and assessment:

The course is delivered in the form of lectures which cover nine topics that aim at presenting theoretical knowledge to students and increasing their practical training for developing children's potential for creativity through the means of music.

The course is based on continuous assessment and the final mark is formed on the basis of two tests.

SB14555 Age Psychology**ECTS credits:** 2**Assessment:** exam**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Abstract:**

The course aims to introduce the future social workers to the peculiarities and regularities concerning the development of individuals from childhood and adolescence.

Course content:

The course contains the following basic components: A theoretical part, which focuses on the mental processes, features and states of children's personality; an experimental part that explores the methods and techniques of observation and processing of data collected during psycho- diagnosis tests. The emphasis is on the problems of development of children's psychic.

Teaching and assessment:

The technology of teaching reflects the objective of the course to introduce students to the methods of working with and handling verbal, figural and pictorial tests for psycho-diagnosis of children of primary school age. The lectures are problem-oriented and have a discussion character.

S03868 Morphology and Syntax**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: pometkova@uni-ruse.bgAssist. Prof. Niya Atanasova Peneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082/ 888 664, E-mail: ndoneva@uni-ruse.bg**Abstract:**

Grammar, with its two branches – Morphology and Syntax, is the science about language. Morphology studies the structure and grammatical meaning of words. Syntax is the science about the structure of coherent speech. There is a special emphasis on the significance of syntax for the mastering of punctuation. Its connection with intonation helps students develop correct, accurate and expressive speech.

Course content:

Definition of the term “word” as the subject of morphology; Parts of speech. Subject matter of Syntax; Combination of words, Classification of simple sentences; Main parts of the simple sentence; Subject; Predicate; Secondary parts of two-compounded sentences; Object; Adverbial modifiers; Definition; Apposition; The attribute; Syntactic realisations of the parts of speech; Parenthetical syntax units; Complex sentences; Complex composed sentence - types; Complex compound sentences - types; Multicomponent complex sentences.

Teaching and assessment:

The course is taught through a combination of lectures and seminars. The students write a research paper on a topical question of Bulgarian grammar. At the end of the semester there is a written exam, which includes also a practical part.

Weekly classes: 2lec+1sem+0labs+0ps+0,5se**Type of exam:** written**SB14556 Mathematics – Part 1 and Part 2****ECTS credits:** 6**Assessment:** exam**Methodical department:**Department of Mathematics
Faculty of Natural Sciences and Education**Lecturers:**Assoc.Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 848, E-mail: velikova@uni-ruse.bgAssoc.Prof. Milena Panova Kostova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 453, E-mail: mpk@uni-ruse.bg**Abstract:** The purpose of the course is the students to acquire knowledge about natural numbers, the actions with them and their properties; to learn main concepts of mathematical logic, set theory, images and relations. Also to update and systematize the knowledge about: rational and real numbers; algebraic expressions, equations and inequalities of the first degree with one unknown; the elements of Euclidean geometry. To acquire knowledge on the basic elements of linear algebra, analytic geometry in the plane, calculus, combinatorics and probability theory.**Course content:**Set Theory – Sets and Actions with Them. Cartesian Product, Relations, Images. Mathematical Logic - Propositional Calculus, Rules for Deduction, Predicate Calculus. Natural Numbers – Divisibility, Divisibility Signs. Method of Complete Mathematical Induction. Notations. Rational Numbers. Algebraic Expressions, Equations And Inequalities of the First Degree with One Unknown. Determinants of 2nd and 3rd Order. Systems of Linear Equations. Axiomatic Development of Geometry. Vectors. Key Elements of Plane Analytic Geometry \nd Calculus. Combinatorics. Basic Concepts of Probability Theory.**Teaching and assessment:**

The lectures give the opportunity of the students to learn the theoretical basics in mathematics for the begging course of education and also to gain extra knowledge in elements in linear algebra, analytic geometry in a plane, mathematical analysis, combinatorics and probability theory. Theory lectures are presented with proof material, supported by examples and problems. At the seminars and workshops are acquired skills for solving problems on the topic. Two tests are foreseen. The forming of the final mark is described in the program. Attendance at all seminars and practical exercises is a must for attestation of the semester.

S03870 Methods of Teaching Music**ECTS credits:** 4**Weekly classes:** 1lec+1sem+0labs+1ps+se**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sevdalina Ilieva Dimitrova, Dept. of Education Sciences, Department of Information, Qualification and Lifelong Learning – Varna

tel.: 052 / 301 241, ext. 128, E-mail: sevdalina.dimitrova1@gmail.comPr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course aims at making students aware of the theoretical and methodological bases of musical education, revealing the pedagogical and psychological activities directed towards the development of artistic-musical abilities, and forming positive habits and creative approaches to organising musical activities in a way understandable to pupils in primary school age. The course also deals with the methodological bases of the aesthetic musical education in the Bulgarian school and the methods, forms and means of instruction in music.

Course content:

The course covers topics that show the psychological foundations of musical education, the theoretical aspects and characterisation of musical abilities. It explores issues related to the formation and development of musical abilities in children. Students are acquainted with the nature, significance, tasks and methods of the different musical activities.

Teaching and assessment: The topics of the lectures acquaint the students with the theoretical foundations of the course. The semester is considered validated if the classes have been attended regularly and if the students have participated actively in the educational process. The exam is written and involves answering the given questions in detail.

SB14557 Pedagogy of Aesthetic and Artistic Activities in Kindergarten**ECTS credits:** 7**Weekly classes:** 2lec+0sem+0labs+2ps+ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Mariana Mincheva Garmidolova, MA, PhD, D. Art, Dept. of Graphic Design and Visual Communications, "St. Cyril and St. Methodius" University of Veliko Tarnovo

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: ytradeva@uni-ruse.bg**Abstract:**

The aim of the course is to provide students with a rich spectrum of knowledge on the goals and main tasks of introducing children to fine arts in the pre-primary stage of the Bulgarian educational system. Students are also introduced to the expected results of the training at each age group, as well as to the importance of the development of artistic abilities of children at the pre-primary period. Students are acquainted with the approaches of pedagogical interaction and teaching methodology in the kindergarten, with the specifics of the forms of pictorial activity and other essential aspects of the teaching of art in the pre-primary stage.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

The course of lectures focuses on: the objectives, the main tasks, the specifics and the new trends of art education in the kindergarten; the specificity of the methods and techniques; the forms of pictorial activity in the kindergarten, etc. The seminars allow the students to develop skills in implementing the rich scope of fine arts materials, techniques, art types and genres suitable for the kindergarten.

Teaching and assessment:

In the lectures the course tutor uses the whole-class interaction pattern and visualizes a variety of accessible didactic materials. During the seminars the students are mainly assigned fine art tasks which involve individual work rather than creative group work projects.

SB14558 Methods of Teaching Physical Activities and Sport**ECTS credits:** 2**Assessment:****Department involved:**Department of Physical Education and Sport
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Abstract:**

The course Teaching Sport and Physical Activity is intended for undergraduate students of Pre-school and Primary school education. Students should gain understanding of the range of knowledge and skills underpinning sports activities and development. The course covers topics that should reveal the basic principles, means and methods of managing the educational process during the PE classes in kindergartens. It also focuses on the range of activities and forms of PE education.

Course content:

Introduction and subject matter of the course; General classification of the means and forms of PE; Initiatives for developing physical abilities of children; Motional habits; Physical abilities; Didactic principles; Terminology.

Teaching and assessment:

During the lecture and practical classes, it is easy to acquire the knowledge about the basic issues in the theory of physical education. They are held according to the contemporary requirements for effective training. They aim at helping students receive a sound theoretical and practical preparation.

Weekly classes: 1lec+0sem+0labs+1ps**Type of exam:****SB14559 Methods of Teaching Nature Studies****ECTS credits:** 2**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Julia Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course familiarizes the students with the organisational forms and methodological tools for conducting the educational process involving acquiring knowledge about the natural and social environment in kindergartens. The subject forms creative abilities and skills for determining the contents of knowledge and using the routines and social life in kindergartens.

Course content:

Basic accents of the course content are: Introduction to the methods, structure, principles for natural selection and arranging the program contents; The excursion, activities according to interests, knowledge as a form of pedagogical interaction; Methods for educational work; Analysis of the contents for children's knowledge about the areas of social and natural environment.

Teaching and assessment:

The following means for teaching the course are used: 1. Lectures; 2. Seminars, connected with the topics from the lectures; 3. Analysis of films that illustrate the educational processes in kindergartens; 4. Doing course assignments – description, research, implementation; 5. Testing procedure – exam in a written form on a theoretical question.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:**

S01979 Musical Instrument**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sevdalina Ilieva Dimitrova, Dept. of Education Sciences, Department of Information, Qualification and Lifelong Learning – Varna

tel.: 052 / 301 241, ext. 128, E-mail: sevdalina.dimitrova1@gmail.com

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The classes in accordion aim at preparing students for using the instrument during musical classes at the primary school. They are designed to give the needed minimum of knowledge and skills for playing songs, folk dancing pieces, children musical pieces which are included in the repertoire at schools. The instruction in the musical instrument assists the work with solfeggio too, elementary theory of music and all other branches of music, studied by students.

Course content:

Structure and parts of an piano of the left and right hand. Exercises in different note durations. Scales until 2 signs-major and minor. Playing on melodies with an accompaniment. Specifics of the minor tones. Minor tones with two signs – natural, harmonic and melodic kind. Transportation and exercises for pre-singing. Technical exercises on semiquavers. Rhythmic figures on the bases of semiquavers. Rhythmical beats-3/8 and 6/8. Irregular beats – 5/8, 7/8, 8/8, 9/8. Learning art repertoire. Playing in group.

Teaching and assessment:

The instruction is individual. In the classes the lector gives theoretical and methodical directions for the material which have been learned. The classes also involve individual study and practice at home, which facilitate the complete mastering of the knowledge acquired during classes.

SB14560 Children's Rights**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 0lec+1sem+0labs+0ps**Type of exam:** written

SB14561 Pedagogical Ethics**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

Given the strategic location of ethics in science and its practical sense the goals of the course are defined as follows: to provide knowledge related to basic ethical concepts in a way helps their comprehension of axiological point of view and their practical significance, to determine starting positions and objectives of employees within the moral life ; create psychological guidance and embed basic knowledge to build a good working life oriented conditions for success , to provide alternatives to self-knowledge , self-development , self-improvement and building community united around care promoting moral values and behavior

Course content:

Nature and origin of morality. Purpose and objectives of ethical science. Categorical aid. Specificity of ethics given professional activity.

Teaching and assessment:

The course is taught in the form of lectures. During the course students are provided with examples and models related to non-traditional learning in the form of trainings and games which include interactive methods. Students are given tasks for individual work which cover the topics discussed at the lectures. Depending on their personal preferences and on the references given students could choose a topic for their individual work. The course tutor approves the topics and the ready assignments are evaluated on the basis of approved criteria.

Weekly classes: 0lec+1sem+0labs+0ps**Type of exam:** written**SB14562 Aesthetics****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 0885 208 265, E-mail: mzhelyazkova@abv.bg**Abstract:**

The purpose of the lecture course is to clarify questions, concerning the beautiful and the sublime, the tragic and comic, the substance of art and its regularities and specifics. The course helps students develop aesthetic appreciation and criteria and broaden their aesthetic culture.

Course content:

The questions examined in the course can be divided into four groups. The first group includes topics on the history of aesthetic thought; the accent is on the life and work of aestheticians with a long-lasting influence on human thought. The second group deals with the basic aesthetic categories: the beautiful, the sublime, the tragic, the comic, etc.; students should develop both theoretical and practical skills for recognizing them in life, nature and art. The third circle of questions is directed to the problems of the arts - poly-functionality, art forms, etc. The fourth group is focused on aesthetics in life – aesthetic taste, aesthetic education, behaviour, etc.

Teaching and assessment:

Continuous assessment involves students answering 2 questions in writing. The semester is validated only if classes have been attended regularly.

SB14563 Interethnic Culture of Interaction kindergarten and primary school**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The curriculum initiates the theories of differences among the cultures in the world. It expresses in specific form the special features of working with different ethnic groups and cultures in our country and ways of interaction between them.

Course content:

Basic knowledge is orientated towards defining specific terms and going through the basic theories of cultural differentiation. Specific techniques are examined for the purposes of working in ethno – cultural environment.

Teaching and assessment:

The mode of education is traditional conducting of lectures, accompanied by multimedia presentations, upon which discussions are organised, as well as solving problems. Materials for conversed connection are used with the students. The paper's topic is to be selected from suggested topics. Literature and references are given. The form of assessment is continuous assessment.

Weekly classes: 0lec+1sem+0labs+0ps**Type of exam:** written**SB14558 Methods of Teaching Physical Activities and Sport****ECTS credits:** 2**Assessment:** exam**Department involved:**Department of Physical Education and Sport
Faculty of Natural Sciences and Education**Lecturers:**Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Abstract:**

The course Teaching Sport and Physical Activity is intended for undergraduate students of Pre-school and Primary school education. Students should gain understanding of the range of knowledge and skills underpinning sports activities and development. The course covers topics that should reveal the basic principles, means and methods of managing the educational process during the PE classes in kindergartens. It also focuses on the range of activities and forms of PE education.

Course content:

Introduction and Subject Matter of the Course; General Classification of the Means and Forms of PE; Initiatives for Developing Physical Abilities of Children; Motional Habits; Physical Abilities; Didactic Principles; Curriculum for Pre-Elementary School Physical Education; Diagnosis of the Physical Activity of Children at Kindergartens.

Teaching and assessment:

During the lecture and practical classes, it is easy to acquire the knowledge about the basic issues in the theory of physical education. They are held according to the contemporary requirements for effective training. They aim at helping students receive a sound theoretical and practical preparation. The course finishes with a written exam. The final mark is formed taking into account the assessment of the practical activities.

Weekly classes: 1lec+0sem+0labs+1ps**Type of exam:** written

3879 Theory and Methods of Teaching Fine Arts in the Primary School**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Prof. Mariana Mincheva Garmidolova, MA, PhD, D. Art, Dept. of Graphic Design and Visual Communications,
"St. Cyril and St. Methodius" University of Veliko TarnovoPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The aim of the course is to provide students with a rich spectrum of knowledge on the goals and main tasks of introducing children to fine arts in the primary stage of the Bulgarian educational system. Students are also introduced to the expected results of the training at each age group, as well as to the importance of the development of artistic abilities of children at the primary school period. Students are acquainted with the approaches of pedagogical interaction and teaching methodology in the kindergarten, with the specifics of the forms of pictorial activity and other essential aspects of the teaching of art in the primary stage.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

The course of lectures focuses on: the objectives, the main tasks, the specifics and the new trends of art education in the kindergarten; the specificity of the methods and techniques; the forms of pictorial activity in the kindergarten, etc. The practice focus on the specifics of colour combinations, painting, graphics and sculpture creation and their implementation in the arts education in the primary school. Special emphasis is placed on the specific of the decorative applied arts as well as on the problems of drawing shapes, the specifics of the teamwork, group work and the project activities.

Teaching and assessment:

In the lectures the course tutor uses the whole-class interaction pattern and visualizes a variety of accessible didactic materials. During the seminars the students demonstrate their skills for presenting their artistic ideas through the means of fine art and they also demonstrate the level to which they have acquired the relative fine art material and technique. The final grade is formed on the basis of a positive result on the exam and it also takes into account the overall results on the seminars and the level of mastery on the individually prepared course work.

S03880 Methods of Teaching Mathematics**ECTS credits:** 9**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The objective of the course is to introduce students to the principles of mathematical education in the Primary school and to form abilities for presenting, practising and systematizing mathematical information and knowledge. Students are acquainted with the objectives and tasks of mathematical education; they are taught skills to develop lesson plans and present the material in the three main mathematical branches – Arithmetic, Algebra and Geometry thus getting an understanding about the role of Mathematics in the development of mental skills.

Course content:

Subject, goals and tasks. Planning. Didactic foundations. Principles and methods. Methods for teaching notions about one-digit, two-digit, three-digit and poly-digit numbers and operations with them. Mathematical problems with text conditions. Ways for fast verbal arithmetic. Teaching Algebra. Geometrical knowledge. Introduction of the pupils to measure units for length, weight, capacity and time.

Teaching and assessment:

The course is taught through a combination of lectures and seminars. Seminars are designed to complement and reinforce the notions introduced at lectures; class work involves discussions, doing tests, devising lesson plans, analysing and discussing lessons, analysing of school documentation.

SB14588 Methodology of Language Acquisition and Development of Speech**ECTS credits:** 2**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Course description:**

The work on speech development in kindergarten is a daily activity with a great importance. By developing children's speech abilities, the teacher develops their mental abilities. The course examines the main means and methods by which the complex linguistic matter becomes easy and interesting for the children to acquire and the work with literature provokes children's involvement and emotional response to the studied texts. The main objective of the subject is to stimulate the communicative abilities of the children at nursery school.

Course content:

The main themes are: sound culture, grammatically correct speech, semantization, work with literature texts, sorts of colloquial speech, work with the process of teaching of read and write and diagnostics of children's speech. Every one of them is built by subthemes, representing different sides of the corresponding speech activity.

Teaching and Assessment:

The lectures have the following structure: short historical review, basic terms, specifics of children's speech and children's verbal behaviour, basic themes in traditional and innovative plan, grammatical and speech skills- methods, principles and means for their structuralization.

The exercises follow the lecture contents, transforming the theoretical knowledge into practical skills. The students work on plans for different types of intentional situations- playful, practical, and educating, make an investigation with diagnostic aim with children from different age groups and the results and conclusions from them.

S03882 Lesson Observation in Kindergarten**ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bgAssoc Prof. Vladislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bgPr. Assist. Prof. Kamen Vaskov Simeonov, MA, PhD, Department. of Physical Education and Sports
tel.: 082 / 888 225, E-mail: ksimeonov@uni-ruse.bgPr. Assist. Prof. Petia Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bgPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:** The observation aims at introducing students into direct educational work in kindergarten by observation of situations and games, conducted by leading teachers involved in the practical study process.**Course content:** There is observation of situations about native language, mathematics, art, design and technology activities, physical education, orientation in the surrounding environment, different regime moments and games.**Teaching and assessment:** The observation is conducted by a methodologist who sets students the task of noticing particular things during the observation. After 3 or 4 classes of observation at one visit, a conference is carried out together with the leading teacher, but led by the methodologist; thus students are given the chance to ask questions, to analyse or discuss the methodology used in the classes. The assessment is continuous and it is a sum of all grades given by the different methodologists for students' participation and observation of classes (these grades are written down in every Student's Teaching Practice book).

S03883 Foundations of Natural Sciences**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course's aim is to provide students with a system of knowledge about Natural Sciences which is necessary for the future primary teachers who will teach "Man and Nature" and "Household Maintenance Skills and Techniques".

The lectures in this course are structured on the basic Natural Sciences concepts – forces, movement, energy, substances and materials. The content of every concept is presented integrally – as knowledge about life sciences and about inanimate nature. Thus the lectures correspond to the integral character of the subject "Man and Nature" which the students are preparing to teach at school.

Course content:

History and Methodology of Natural Sciences; Time and space in Natural Sciences; Material structures in the Universe and their hierarchy – from the atom to the Universe; Movement and Energy; Substances and Materials; Cellular structure of the organisms, water, air and soil; The problem Space-Time and Matter and General Natural Pattern of the World.

Teaching and assessment:

The course is taught through lectures and seminars. There is a certain number of points that should be accumulated in order to obtain semester continuous assessment for this course. There are exact criteria concerning the seminal essay. The way of forming the final grade includes the results from the continuous assessment and the quality of the course paper.

Weekly classes: 2lec+0sem+0labs+0ps+se**Type of exam:** written**S03884 History of Bulgaria****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

This course aims at introducing the students to the main periods in the historical development of Bulgaria from the establishment of the Bulgarian state in 681 to 1918. Students completing this unit will be well prepared for the work with children of primary school age.

Course content:

Introduction. Thracians, Slavs, Proto - Bulgarians. Establishment and Acknowledgment of the Bulgarian State. Expanding the State Territory. Spiritual and Political Progress – Conversion of the Bulgarian People to Christianity. Literary and Cultural Progress. The Bulgarian Lands under Byzantine Rule. The Uprising of Asen And Peter. Kaloyan – International Acknowledgment. Ivan-Asen II. The Uprising of Ivailo. The Terter's and the Shishman's Dynasties. Bulgaria under the Ottoman Rule. The Bulgarian Revival. The April Uprising and the Liberation of Bulgaria. The Creators of Modern Bulgaria. Stefan Stambolov – A Period of Bulgarian Nationalism. Consolidation and Declaration of the Bulgarian Independence. The Balkan Wars.

Teaching and assessment:

The course comprises of lectures. The term is considered validated if students have attended classes regularly. Students prepare a seminal essay on a chosen topic which is about 12-15 pages. The final grade includes also the seminal essay result.

SB14559 Methods of Teaching Nature Studies**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course familiarizes the students with the organisational forms and methodological tools for conducting the educational process involving acquiring knowledge about the natural and social environment in kindergartens. The subject forms creative abilities and skills for determining the contents of knowledge and using the routines and social life in kindergartens.

Course content:

Basic emphasis in the course content are placed on: Introduction To The Methods, Structure, Principles for Natural Selection and Arrangement of the Course Content; The Excursion, Activities According to Student's Interests, Knowledge as a Form of Pedagogical Interaction; Methods for Educational Work; Analysis of the Contents of Children's Knowledge about the Areas of the social and natural Environment.

Teaching and assessment:

The following means for teaching the course are used: 1. Lectures; 2. Seminars, connected with the topics from the lectures; 3. Analysis of films that illustrate the educational processes in kindergartens; 4. Doing course assignments- description, research, implementation; 5. Testing procedure - exam in a written form on a theoretical question and presenting the course assignment.

SB10932 Methods of Teaching Bulgarian Language and Literature**ECTS credits:** 9**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: pometkova@uni-ruse.bgAssoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/ 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department. of Bulgarian Language, Literature and Art,
tel.: 082/ 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course aims at giving students theoretical and practical knowledge about the nature and specific features of teaching and acquiring the native language in the primary school age. It focuses on the problems of native-language and literary education in the primary school with regard to new concepts and recent developments in the field.

Course content:

Specifics of the subject *Bulgarian Language and Literature in the Primary School*. A System of Teaching Elementary Literacy. Language Acquisition; Development of Coherent Speech and Writing Skills in the Primary School; The Link Between the Development of Speaking Skills and the Teaching of Literature and the Bulgarian Language.

Teaching and assessment:

The module is taught through a combination of lectures, seminars and practical classes. The lectures, seminars and practical classes consider a selection of theoretical problems and perspectives on teaching and learning languages and literature, and relate these to different practical solutions and examples. Students prepare a course work on a given topic and illustrate the application of a methodological approach in a specific lesson.

The course ends with a written exam. Students write on a summary question from the syllabus and answer questions on the course work.

S03887 Methods of Teaching th Man and Society**ECTS credits:**4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course takes into consideration the unique conditions in the personal development of children with their specific experience and stage of accepting and processing the information about objective reality, as well as their orientation in natural and social events. Through his/her pedagogical interactions with the subject, the teacher is obliged to take out the experience of the children from their condition of pre-school and pre – theoretical disunion and lack of a system to the cognitive and intellectual ability for absorbing the social sciences in upper grades.

Course content:

Goals and Assignments of the educational work in the subjects Man and Society and Civil Education; Program contents in primary school; The Lesson; The Excursion; Contents and Characteristics of the subjects Man and Society and Civil Education; Social areas.

Teaching and assessment:

The educational process goes through lectures and seminars. The students have to achieve a certain number of skills for unaided solving of creative tasks in the area of programming and conducting the forms of educational work in Man and Society and in Civil Education.

Weekly classes: 2lec+1sem+0labs+0ps+ca**Type of exam:** written**S03888 Methods of Teaching Man and Nature****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care
tel.: 082 / 821 993, E-mail: dora@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

This course's goal is methodological training of the students to teach the Natural Sciences part of the subject The World Around – in the 2nd grade and the subject "Man and Nature" in the 3rd and 4th grade in the primary stage of education in the Bulgarian school. In practical aspect, the course is based on the pedagogical practice conducted by the course in the previous semester.

Course content:

Methodological system of the subject; Methodological system of the following foundation topics: Bodies and Substances (3rd grade), Properties and usage of Substances (4th grade). Air and Water (3rd grade), Movement and Energy (4th grade), Changes of the Seasons (2nd grade), The Planet Earth (4th grade); Methodological system of the ground topics for the living nature: Plants and Animals (2nd grade), Living organisms and their environment (3rd grade), Variety in Living Nature (4th grade).

Teaching and assessment:

The training in this course is accomplished through lectures and seminars. The way of forming the final grade includes the results from the continuous assessment and the quality of the course assignment.

S03889 Lesson Observation in Primary School**ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports,

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Pt. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Deptat. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The observation of lessons aims at introducing students to the immediate learning environment of basic education, early stage, through direct observation of lessons, conducted by leading teachers.

Course content:

There are lessons in Bulgarian Language and Literature, Mathematics, Man and Society, Man and Nature, Home and Technology, Physical Education and the Class Teacher's Lesson.

Teaching and assessment:

The observation is conducted by a methodologist who pre-assigns students tasks after the lesson observation. The discussion of the observed lessons takes place after the classes and the teachers. The university methodologists leads the discussion and allows for questions.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** oral**SB14565 Methodology of Language Acquisition and Development of Speech****ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Vladislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Course description:**

The course examines the main means and methods by which the complex linguistic matter becomes easy and interesting for the children to acquire and the work with literature provokes children's involvement and emotional response to the studied texts. The main objective of the subject is to stimulate the communicative abilities of the children at nursery school age.

Course contents;

The main themes are: Sound Culture, Gramatically Correct Speech, Semantization, Work with Literary Texts, Types of Coloued Speech, Developing the Reading and Writing Skills of Children and Diagnostics of Children's Speech. Each of the course topics comprises of subtopics which present different aspects of the relevant speech activity.

Teaching and Assessment:

The lectures have the following structure: short historical review, basic terms, specifics of children's speech and children's verbal behaviour, basical themes in traditional and innovational plan, gramatical and speech skills-methods, principles and means for their structuralization. The exercises follow the lecture contents, transforming the theoretical knowledge into practical skills. The students work on plans for different type of intentional situations- playful, practical, and educating, make an investigation with diagnosticaim with children from different age groups and the results and conclusions from them.

Weekly classes: 1lec+1sem+0labs+1ps**Type of exam:** written

SB14566 Methods of Teaching Design and Technology in the Kindergarten**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**This course is intended to give students specialised methodological knowledge and practical technical skills necessary for teaching *Design and Technology in the Kindergarten*.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

Legal documents governing the education and training process in the field "Design and technologies", methodological system of "Design and Technologies"; didactic principles; training methods; working in the open, household service work, technical design and modelling; forms of organization of the educational and process; natural materials, paper, cardboard.

Teaching and assessment:

In the lectures the course tutor uses the whole-class interaction pattern and visualizes a variety of accessible didactic materials. The final grade is formed mainly on the basis of the results of the exam which includes topics from the syllabus. When forming the final grade the course tutor takes into consideration also the participation of students in the seminars.

SB14567 Development of Creative Abilities in Pre-school and Primary School Age**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

This course's goal is to acquaint the students with the basics of creative education in pre-school and in primary school age on the basis of actual scientific research and methodological works. The theoretical accents in this course of education are extracted on the basis of practical application with an eye on acquisition of skills for competent managing the creative processes and stimulating the creative abilities of growing up children.

Course content:

The topics included are directed towards revealing the techniques for stimulating creative abilities in a variety of creative activities during the different moments of life in kindergarten and forms of work in school.

Main topics: Subject, Goal and Assignments of creative pedagogy; Essence of creativity and different creative activities; Creative potential of the child, specifics of children's art; Approaches, orientations and technologies for stimulating the creative abilities; Diagnostics of creative abilities.

Teaching and assessment:

The presentation of theoretical knowledge is accomplished in an explanatory, problem-oriented and illustrative form while at the same time opportunities for studying through discovering, constructing, proving hypotheses, problematic aspects of certain questions are given. The final grade is based on student's results on the test.

SB14568 Practical Techniques for Creativity in Kidergarten and Primary School**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main goal of this course is the practical training of the students for accomplishing the goals of creative education in the pre-school age. To assure the competent managing of creative processes in this course are included specific methodological suggestions for stimulating creativity, as well as algorithms for development, modification and adaptation of creative assignments and games.

Course content: Main topics: Emotional climate and the role of pedagogue for activating creative thinking; Technologies for development of skills for creative thinking according to the system of E. De Bono; Practical approaches to creativity; Technology for stimulating creativity through humor; TRIS; Analysis of the products of children`s creativity.

Teaching and assessment: Informative-explanatory, problem-oriented and illustration methods are used when presenting theoretical knowledge and instructions for group and individual creative activity of the students. In the technology of education, priorities are given to the practical application of methods and approaches to creativity, of modeling creative situations, conducting discussions, analysing products of the creative activity. The final grade is formed according to a test performance and the course assignment.

SB14569 Pedagogy of Communication Skills**ECTS credits:** 2**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History Faculty
of Natural Science and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

Practice for the formation of communication skills is designed to introduce students to basic models, strategies and techniques in teacher interaction to form in their ability to communicate with certain levels of socio-educational activities. Particular attention is paid to the practical options for development and implementation of interactive techniques to realize the main objectives and tasks of social work educator.

Course content: History of communication. Effects of technical means on its development and modification. Information requirements - reliability, timeliness and efficiency . Legal security of our right to be informed. Ways to collect and transmit information. Key features and principles of communication: media and persuasion, education and awareness, heuristic etc. Types of communication. Classifications for various indications. Monologue types of communication. Preparation and implementation of a report, speech, lecture, and more. Computer presentation. Dialogue as a form of communication. Sports. Preparation and management of discussion, dispute, talk and more. Negotiations as a kind of communication. Types of negotiations. Negotiation strategies and tactics. Preparation for participation in different types of communication. Their organization and structure. Introduction, body and conclusion. Ranking information in the exhibition. Logical and rhetorical argumentation. Types of arguments. Types of communication. Historically, national and other features. Means and methods of communication in the communication process. Persuasion, suggestion, infection, information vacuum and others. Nature and dimensions of social and pedagogical skills. Formation of skills training for group work. Non-verbal communication. Nature and types of nonverbal communication.

Teaching and assessment: Teaching is conducted by practical with students' differentiated groups. Students are introduced to theoretical and practical bases mainly in the formation of social and personal skills specific to the profession of social pedagogue in accordance with the age of customers. Arrangements are interactive methods for the formation of attitudes and skills for productive educational interaction.

SB14570 Intercultural Education and Socialization of Children from Different Ethnic Background**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The course aims at introducing students to the most important theories about the differences of cultures on national, European and global scale and to examine the specificity of the Bulgarian case with its ethno-cultural groups and the interactions between them.

Course content:

Globalization and the emergence of intercultural education. The Child in the World of Culture. Essence of the concept of culture and its role in human development. Role of culture in human development. Development of ethnic self-awareness / cultural identity. Nature and content of intercultural education. Intercultural interactions in kindergarten and elementary school. Teacher and intercultural education. Methods of working in intercultural environment. Minority education.

Teaching and assessment:

Frontal - through lectures using multimedia, discussions and other forms of interaction. The final grade is formed by a written exam, which takes the form of a test covering the entire course content of the discipline.

SB14571 Acquisition of Bulgarian Language by Bilingual Children**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 0lec+1sem+0labs+0ps+se**Type of exam:** written

SB14572 Children's Folklore**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E- mail: doneva_v@uni-ruse.bg**Course description:**

The course aims at providing the future teachers with the necessary knowledge about the specific features of Bulgarian folklore. The course introduces students to the foundations of Bulgarian culture and its spiritual aspects. The course focuses on the problems, aims and tasks of Folklore studies, the prominent figures in the field and its relations to other sciences – e.g. Literature, Social and Cultural Anthropology, Didactics, Sociology, etc. It examines all branches of Bulgarian children folklore, the resources and their interpretation. The course also traces back the development of Children's Folklore in the process of national self-awareness and tackles its present-day implications. It explores children's folklore genres and provides an opportunity for their field research.

Course content: Bulgarian Mythology. Myth and History. Myth, Legend, Saga. Myth and Folklore. Contemporary Problems of Bulgarian Children Folklore. Raising Children's Awareness of the Folklore Traditions. Origin and Development of the Folklore Studies. Folklore Schools from the 19th century. Historic Sources of Bulgarian Folklore. General Characteristics and Poetic Features of Folklore. Classification Systems. The Bulgarian Folklore Studies in the Period of the Revival. The Bulgarian Folklore after the Liberation. Folklore Calendar. Folklore Traditions and Celebrations. Family Traditions. Rituals. Children Folklore – Genres, Origin, Development and Classification. Christmas Rituals. Participation of Children in the Rituals. Spring Festivities – Rituals, Songs. Omens, Proverbs and Riddles and Anecdotes. Stories. Characteristic Features of the Genre. Games for Children. Field Research Methods. Family Tree.

Teaching and assessment:

The seminars include discussions or presentation of the topics. Students have to note down or record folk tales, songs, etc. from their home region. This rich collection of their recordings will allow for the development of a detailed children folklore map of Ruse and the region. The final mark is formed on the basis of students' active participation in the classroom during the discussions, the quality of the produced assignments and the presented seminal essay.

SB14573 Pedagogical Rhetoric**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E- mail: doneva_v@uni-ruse.bg**Abstract:**

The course aims at revealing the foundations of Rhetoric and to develop students' understanding of the art of eloquent speech and of rhetoric as a science. Students should acquire theoretical knowledge about the approaches to preparation and interpretation of the different genres and varieties of public speech and about the techniques of mastering the rhetoric art.

Course content:

The main topics are: Historical and theoretical foundations of rhetoric; Oratory style; Rhetorical figures and tropes; Verbal and non-verbal communication in pedagogical communication; Methods and techniques of communication; Speech culture and techniques.

Teaching and assessment: The course comprises of seminars. Active forms of training include the writing of a seminal essay. The most actively used forms and methods of learning are talk, analysis and interpretation, exercise, mental attack, speaking and listening, rhetorical persuasion.

SB14574 Early Training in Reading and Writing**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emilia Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The objective of the course is to introduce students to the basic methods, forms and approaches to teaching children at the pre-school age reading and writing skills. It is a prerequisite for the courses in Teaching Aspects of Literacy and Methodology of Teaching Bulgarian Language and Literature. Students completing this unit will be able to apply the traditional and innovative pedagogical technologies and skills to teaching six-year-old children in reading and writing.

Course content:

Theoretical foundations of the early training in reading and writing; Methods, forms and approaches to teaching literacy skills; Characteristic features of the process of acquisition of literacy skills by six-year-old children; Innovations and traditions in the methodology of education in reading and writing; System of instruction in reading; Developing skills for correct reading; Synthetic approaches to reading; System of instruction in writing; The early education in reading and writing and the program "Step by step".

Teaching and assessment:

During the seminars, the students are acquainted with the various methods, forms and ways for teaching six-year-old children reading and writing skills. They are introduced to a system and algorithms of pedagogical techniques. The semester is validated if classes have been attended regularly.

Weekly classes: 0lec+1sem+0labs+0ps+se**Type of exam:** written and oral**SB14575 Coping with Disasters and First Aid****ECTS credits:** 2**Assessment:** continuous assessment**Department of involved:**Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:****Assos. Prof. Teodora Nedeva Cherbanova, MD, PhD, Department of Health Care**tel.: 082 / 888 410, E-mail: tsherbanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bg**Abstract:**

The course focuses on the specific problems concerning emergencies. All of them are life threatening situations. This makes an important need in terms of the clinical, therapeutic and organizational problems to be discussed with students. The aim of the course is to develop students' knowledge and skills for adequate and competent actions in cases of emergency.

Course content:

General Characteristics of Disasters. Classification. Organization of the Medical Insurance of People In Emergency Situations. Social and Psychological Problems in Emergency Situations. Accidents – Classification and Behaviour during Accidents. Acute Poisoning from Various Agents – Classes of Agents, Behaviour. Ionising Radiation – Biological Action, Acute Radiation Syndromes – Classification and Behaviour. First Aid – Definition, Needs and Tasks. Road Traffic Accidents – Ensuring Safety, the Need for Giving First Aid, Algorithm of Behaviour. First Aid in Case of Drowning. First Aid in Case of Allergic Reactions. First Aid for Acute Conditions in Childhood. First Aid in Case of Injuries.

Teaching and assessment:

The teaching is done basically through lectures. Lectures present the theoretical basis of the subject matter and are accompanied by appropriate examples. They are held in a lecture hall where modern methods of presentations – multimedia, case studies and discussins are used. The use of educational films and special medical equipment is also possible. Particular attention is paid to the clarification of the enormous need for a quick and adequate response in emergency situations that threaten human life.

The final grade is based on a written examination during and after the lectures and the seminal essay.

SB14576 Project-based Education in the Primary School**ECTS credits:** 2**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bg**Abstract:**

The purpose of the course training is to acquaint students with the theoretical and applied aspects of project-based learning. Emphasis is placed on the possibilities for integrating the project method in the educational process. Students are introduced to the technological model of planning and implementation of project work in elementary school age, as well as the criteria for evaluating the project presentation and project product.

Course content:

The course covers: theoretical foundations of project-based training; reformist pedagogy and the ideas of John Dewey, Ellen Parkhurst, Roger Cousinet and others; group activity as a major component of project-based training; project-based training in a multi-age classroom organization; learning through collaboration; prospects for realization of project-based training as an educational technology in modern conditions; "Project Method" and project-based training; technological model of planning and realization of the project work; classification of project types; managing project activities and the role of the teacher. Criteria for evaluating project work.

Teaching and assessment:

The learning process is conducted through seminars. Interactive methods and tools, multimedia presentations, diagrams, tables, models are used. The seminars aim to encourage students to plan and implement project activities in order to understand and reflect on the theoretical material taught.

3896 Theory and Methods of Teaching Sport and Physical Activity**ECTS credits:** 7**Assessment:** exam**Departments involved:**Department of Physical Education and Sport
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Kamen Vaskov Simeonov, MA, PhD, Department of Physical Education and Sport
tel.: 082 / 888 252, E-mail: ksimeonov@uni-ruse.bg**Abstract:**

The course "Theory and Methods of Instruction in Sport and Physical Activity" is intended for the undergraduate students in the Pre-school and Primary Education programme. Students should gain an understanding of the range of knowledge and skills underpinning sports activities and development. The course covers topics that should reveal the basic principles, means and methods of managing the educational process during the PE classes in primary schools. It focuses also on the range of activities and forms of physical education in schools.

Course content:

Introduction and Subject Matter of the Course; General Classification of the Means and Forms of PE; Initiatives for Developing Physical Abilities of Children; Motor Habits; Physical Abilities; Didactic Principles; Curriculum for Pre-School and Primary School Physical Education; Diagnosis of the Physical Activity of Children at a Primary School Age.

Teaching and assessment:

During the lectures and practical classes, it is easy to acquire knowledge about the basic issues in the theory of physical education. They are held according to the contemporary requirements for effective training. They aim

at helping students receive a sound theoretical and practical preparation.

S03897 Children's Literature**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assist. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course aims at introducing students to the classical literary works for children by Bulgarian and foreign authors. The course in Literary Theory is a prerequisite for Children Literature. The subject assists the acquisition of knowledge and skills, necessary for the literature classes (reading) in the primary school.

Course content:

The World of the Child in the Children Literature and the Children Literature in the World of the Child; Arabian Nights; Charles Perrault, The Grimm Brothers, Wilhelm Hauff, Hans Christian Andersen, Pushkin, Mark Twain, Lewis Carroll, Astrid Lindgren, Jannie Roddary, Petko R. Slaveikov, Ivan Vazov, Uncle Stoyan Grandfather Blago, Elin Pelin, Ran Bosilek, Angel Karaliichev, Asen Raztsvetnikov, Kalina Malina, Dora Gabe, Elisaveta Bagryana, Emiliyan Stanev, Valery Petrov, Jordan Radichkov, etc.

Teaching and assessment:

Lectures are designed to provide students with knowledge about the richness and diversity of children literature in Bulgaria and worldwide. At lectures, students are offered different directions and possibilities of interpretation of literary texts. Seminars are designed to practice and complement the material introduced at lectures. The semester is validated only if the classes have been attended regularly. The exam is in a written form and involves answering two theoretical questions: one on foreign literature and one on Bulgarian literature for children.

SB14577 Pedagogical Psychology**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bg**Abstract:**

The subject aims at introducing students to the psychological mechanisms and regularities of the educational activities in the primary school and their progressive character.

Course content:

Students will study the new functions of psychological knowledge. They will acquire the latest methods for psycho-diagnosis during game and learning activities, the ways of motivating the teaching/learning process, the psychological conditions underlying the effective educational process. Special attention is paid to the process of forming children's personality through the basic educational activities in kindergartens and primary schools.

Teaching and assessment:

The course is taught by using a combination of lectures and labor classes (tests, methods of psycho-diagnosis).

SB13719 The Art of Speech and Performance**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velislava Vladimirova Doneva, PhD, MA, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The course aims at introducing students, the future teachers, to methods and techniques for effective speaking in public, for reproducing passages from works of fiction in an expressive verbal way; besides they will learn how to apply such techniques in their work as teachers and how to modify them in accordance with the age requirements of children. They will get acquainted with the methodology for teaching children correct pronunciation and will have the opportunity to improve their own abilities to speak correctly which is of vital importance in their work as teachers.

Course content:

Objectives and tasks of the course. Techniques for delivering a good speech. Articulation and organs of articulation. Orthoepy. Artistic perception. Parallels between public speech acts and acting. Means and forms of the artistic, logical and emotional expression. Methodology of teaching public speech skills. Extracurricular activities in speech-performance art in the primary school.

Teaching and assessment:

The instruction is performed through lectures and practical classes. The continuous assessment grade is formed on the basis of tests combining theory and practice and artistic performance of texts from various literary genres.

Weekly classes: 1lec+0sem+0labs+1ps**Type of exam:** written and oral**3900 Teaching Practice in the Kindergarten****ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bgAssoc. Prof. Vladislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: gggeorgieva@uni-ruse.bgPr. Assist. Prof. Kamen Vaskov Simeonov, MA, PhD, Department. of Physical Education and Sports
tel.: 082 / 888 225, E-mail: ksimeonov@uni-ruse.bgPr. Assist. Prof. Petia Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bgPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The teaching practice seeks direct involvement of students in the kindergarten, Students deliver lessons to children from different. The lessons cover a wide range of educational fields.

Course content:

The lessons delivered are in Bulgarian language, Mathematics, the Social and Natural World, Game Culture, Music, Art, Physical Education.

Teaching and assessment:

The teaching practice is led by a teacher in the kindergarten and the respective methodologist. Students prepare a lesson plan which is then discussed with the mentor, the methodologist and finally with the children's teacher. After students observe the delivered lessons by their peers (from one to five lessons within one day) the lessons are discussed and analysed with the help of the methodologist. The final mark is calculated as an average of the grades given by each methodologist.

S03901 Pedagogy and Technology of the Game**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main goal of this course is scientific clarification of psychological and pedagogical bases of technology of play interaction, discovering the place and role of the game in perspective to enrich children`s game culture.

Course content:

Emphasis is put on the essence of the game as a leading activity in pre – school age, its development and pedagogical functions, discovering of the quality of originality and purpose of the different kinds of games, centered usage of contemporary technologies of developing the game activity of the children and introducing of game-like forms in the pedagogical processes in kindergarten; on the methodological ability for diagnosis, planning and realisation of games. To ensure the practical competence of the students, the seminars are directed to analysing and mastering of specific games, as well as the algorithms for developing, modification and adoption of game models.

Teaching and assessment:

The basic methods of teaching are: informative – explanatory, illustrative and problem-based presentation, using predominantly the scientific logic of knowledge. Only the students who have submitted their course assignment, developed according to the pointed requirements are admitted to the final exam.

Weekly classes: 2lec+2sem+0labs+0ps+ca**Type of exam:** written**S03902 Pedagogy of Early Childhood Education****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg**Abstract:**

The course reveals the scientific, theoretical, practical and applied problems of pre-school pedagogic from a classical and a modern aspect. The accents are on the instructive, procedural and organisational essence of upbringing and education in kindergartens from the perspectives of the systematical and structural approach, and thereby, on the character of the pedagogical interaction between the child and the educational factors.

Course content:

Theoretical Foundations of Pre-School Pedagogy as Science. The Diversity of the Processes of Differentiation and Integration of Pedagogical Knowledge. Regularities of the Pedagogical Process in Kindergarten. Types of Upbringing. Methods, Forms, Purposes and Factors for Organisation and Leading of the Play, Study and Labour Activity as Components of the Whole Pedagogical Process. The Problem about the Continuity Between Kindergarten and School, and in the System of Work in School Preparatory Groups. Organisation and Leadership of Pre-School Education. The Principal`s Work as an Administrative and Pedagogical Leader. Planning and Rendering of the Educational Work in Kindergartens.

Teaching and assessment:

The course is taught through seminars. The seminar classes employ different forms of independent work of the students with manuals, methodical guide books and specialised literature on an outlined topic, problem questions, assignments and literature sources attached to them. The practice sessions involve work on an approved assignment topics. The results from the assignments are then discussed by the whole group so that the students can make individual conclusions.

S00659 Study of the Physical Development and Efficiency in Early School Age**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Physical Education and Sports
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Abstract:**

Special attention is paid not only to basic tests, but to the contemporary tests which report anthropometric indexes, physical qualities, coordinative abilities of youngsters; and partially tests which report children's psychometrics. Realising the aim of this course will contribute for better accomplishment of today's educational strategies, standards and tasks during the process of physical education.

Course content:

Purposeful Study, Control and Assessment of the 7–11-year old students, Anthropometric Indexes. Purposeful Study, Control and Assessment of the Physical Efficiency of the 7–11-year old students. Assessment of the Static and Dynamic Strength; Assessment of the Rhythmic Structure of Movement; Motor Coordination.

Teaching and assessment:

Basic problems of physical education are discussed in the seminars. Continuous assessment is carried out through discussions on topics studied and written work on certain tests. This is a condition for continuous assessment of the semester. There is no continuous assessment if there is not a 100% attendance in the seminars. The paper's purpose is students to acquire better theoretical preparation which they are going to apply in practice later.

Weekly classes: 0lec+1sem+0labs+0ps+se**Type of exam:** written**SB14578 Extracurricular Work in the Primary School****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc.Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: evelikova@uni-ruse.bg

Assoc.Prof. Milena Panova Kostova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 453, E-mail: mpk@uni-ruse.bg**Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 0lec+1sem+0labs+0ps+se**Type of exam:** written

SB14579 Reformation Pedagogy**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:****Abstract:****Course content:****Teaching and assessment:****Weekly classes:** 0lec+1sem+0labs+0ps+se**Type of exam:** written**SB14095 Integrated Art Techniques for Children****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Science and Education**Lecturers:**Prof. Mariana Mincheva Garmidolova, MA, PhD, D. Art, Dept. of Graphic Design and Visual Communicatons,
"St. Cyril and St. Methodius" University of Veliko TarnovoPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg**Abstract:**

The course *Integrated Art Techniques for Children* aims to develop students' knowledge about the non-traditional and alternative art techniques and their links with the other school subjects, especially with those school subjects that belong to the aesthetic cycle of disciplines. The course seeks to deepen the practical skills of the students, as well as increase their competences for applying such innovative techniques in the classroom that are specific within the system of artistic and aesthetic education and for the development of children's creativity. Special attention is given to the significant role of those competences in the development of learners' personality, active participation in the classroom, creativity and value system.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

The course of the seminars covers topics such as: theoretical foundations of the integration of knowledge in the teaching and learning process; the integration of knowledge as a problem in present-day pedagogical system; the school curricula as a basis for the implementation of the integrative component in the school subjects of the aesthetic cycles and their specific features; methodological approaches in the actual teaching of an integrated arts lesson. Methodological, practical and technological requirements in the organization of integrated lessons; the application of the integrative approach in the planning of lesson topics and the suitable choice of art techniques; folklore as a source for establishing cross-curricular links in the process of education; the integration between the different types of art in a global aspect – styles, symbols and specific features.

Teaching and assessment:

During the course students get familiar with the relevant artistic techniques and approaches that are serve as a link with other school subjects. The cross-curricula links and terminology used are updated during the course which facilitates students' awareness of the process of integrated art education at primary school level.

The course attempts to provoke the active participation of students who have to present their own interpretations of the problems discussed. After the completion of each group or individual task students are given a mark. The final mark is formed as the average of all marks received on the tasks.

SB14580 History of Ethnic Groups and Religious Communities in Bulgaria**ECTS credits:** 3**Assessment:** continuous assessment**Department of Pedagogy**

Psychology and History

Faculty of Education

Lecturer:

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Course description:**

The course initiates the religious and cultural specifics of the ethnic and religious societies in Bulgaria. It expresses in specific form the special features of working with different ethnic *and religious* groups in our country and ways of interaction between them.

Course content:

Basic knowledge is orientated towards defining specific terms and going through the basic theories of cultural differentiation. Specific techniques are examined for the purposes of working in ethno-cultural environment and multicultural education.

Teaching and assessment:

The mode of education is traditional conducting of lectures, accompanied by multimedia presentations.

Lecture attendance is obligatory. The course is considered valid if students have attended classes regularly. Students' knowledge is assessed by means of a written exam. During the semester students have to write individually a library-research paper. At the end of the course the final grade is based upon the marks of the continuous assessment tests and the library-research paper.

SB14581 Religion and Education**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Science and Education

Lecturers:

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course examines questions related to the most important Bible stories and their presence in the mythology of different nations. Thus we aim to trace back the religious thought of human society and the system of ideologies and conceptions about the micro and macro-cosmos, the ideas of divine or human creation.

Course content:

Introduction; The creation of the world and the people.. The Bible story and myths. Gods -creators. The cosmic mountaext. The Babylon's Tower. The cosmic tree – the relationship between the human society and the divine sphere. The Great Flood - Historical evidence of the event. Treatment of the event in the different world mythologies. Knowledge as a symbol of wisdom. The Snake and the pagan idols. The tree of Life.

Teaching and assessment:

The course is taught by lectures. The semester will be considered validated only if the classes have been attended regularly. Assessment: continuous assessment.

S00615 Principles of Christianity**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course examines questions related to the emergence of Christianity and its evolution into a worldwide religion. Attention is paid to issues concerning the basis of the Christian church and Christian societies, the emergence of the early Christian heresy, the deepening of the contradictions between the Eastern - orthodox and Roman catholic church till the, so called, Great Schism in the year of 1054. The course deals also with issues related to the Protestantism and the differences and similarities between the different currents in Christianity nowadays. Problems concerning the newly appeared sects in this country are also discussed. Thus the course not only introduces students to the basic principles of Christianity but also contributes to the broadening of their outlook.

Course content:

Religious Beliefs in the Roman Empire, Jesus from Nazareth and His Mission. The Emergence of Christianity and its Adoption as a State Religion. The 'Christian church' till the Year of 1054 and Afterwards .Christianity in Bulgaria. The Religious Sects in Bulgaria and Ways of Protection against Their Influence.

Teaching and assessment:

The course is taught in the form of lectures. The semester will be considered validated only if the classes have been attended regularly. The final grade is based on the result of students on a written test administered at the end of the term and a subsequent interaction with the course tutors on topics studied during the term. Students prepare a seminal essay.

S00605 History of Music**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Kristina Petrova Yapova, MA, PhD, D.Arts, Institute of Art Studies, Bulgarian Academy of Science

tel.: 0886 60 75 81, E-mail: yapovak@abv.bg

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course *History of Music* aims to introduce students to the development of music in Europe, with major periods in music culture and their specific characteristics. Knowledge of music is an important part of the overall humanitarian and training are essential for the students - future teachers and educators. This knowledge can be successfully constructed after hearing mastering music samples because music is an art focused on the perception of hearing. Therefore, in parallel with cognitive course provides information and listening to music, which are representative for its author, and the trends of the era.

Course content:

The course traces the emergence of historical consciousness and historical approach in musicology and periodization in music. Students learn about the music in Antiquity, the Medieval genres of music, liturgical music in Western Europe, the music in the age of Baroque, Classicism and its representatives, Romanticism - representatives and genres. Particular attention is paid to musical genres from different periods in music history: Development of operatic genre, music genres from the Renaissance, the development of the symphony and chamber genre in Romanticism. Different national music schools and their representatives. Particularly important is the creation of the Bulgarian music style.

Teaching and assessment:

The course follows the topics given in the syllabus.

The final grade is based on the result of a prepared by the students written text on a topic.

SB14582 Theory and Methods of Teaching Technology and Entrepreneurship**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Todoroka Zhekova Stefanova, MSc, PhD, Dept. of Health Care

tel.: 821 993, E-mail: dora@uni-ruse.bg

Assist. Prof. Valentina Todorova Radeva, MA, Dept. of Bulgarian Language, Literature and Art

tel.: 841 609, ext. 210, E-mail: vtradeva@uni-ruse.bg**Abstract:**

This course aims to give students specialised methodological knowledge and practical technical skills necessary for the teaching of Technology and Entrepreneurship subject at the primary school level. The topics covered in the course complies with the state educational requirements included in the national Technology and Entrepreneurship curriculum for the primary school level, as well as with the other subjects comprising the Technology and Entrepreneurship Sphere in the approved state curriculum.

The expected results of the overall training are relevant to the knowledge, skills and competences specified in Level 7 of the National Qualifications Framework of the Republic of Bulgaria.

Course content:

Technology and Entrepreneurship as a subject (primary school level from 1st to 4th grade), didactic technologies in the system of technology training, content of lessons, didactic principles, methods of teaching, forms of organization, natural materials, paper and cardboard, materials from metal, machine elements, mechanisms, plastic materials, textile, leather, electricity, domestic labour and service labour, technical modelling and constructing, work in the open.

Teaching and assessment:

The course tutor uses the whole-class interaction pattern during the lectures and visualizes a variety of accessible didactic materials. Students work individually or in groups during the seminars. Their individual or group work is preceded by a revision of the theoretical knowledge on the problem. The final grade is formed on the basis of a positive result on the exam but it also reflects the overall performance of the students during the seminars and the level of overall successful completion of the course work.

SB10934 Pedagogical Diagnostics**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The course aims at introducing the undergraduate students to the methods and practice of research in an educational context (mainly in kindergartens and primary schools). Students will acquire skills for gathering and processing relevant information, locating and reviewing literature in the appropriate fields, summarising the results of the research and preparing of the study for publishing.

Course content:

Principles of Pedagogical Research. Methods of Pedagogical Research. Processing and Analysing Information and Data. Statistical Methods for Processing Data. Issues in Statistical Analysis, Application of Statistical Criteria. Statistical Analysis And Interpretation Of Results. Summarising The Results of the Research and Preparing of the Study for Publishing. Academic Writing Techniques: Preparation of a Diploma Paper, Scientific Report, Publications in Scientific Journals.

Teaching and assessment:

Lectures are designed to provide students with both theoretical and practical knowledge.

SB10935 Culture of Speech and Behaviour**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Mira Zhivodareva Dushkova, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg

Assist. Prof. Niya Atanasova Peneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: ndoneva@uni-ruse.bg**Abstract:**The syllabus in *Culture of Speech and Behaviour* is designed for the fourth year students in the bachelor degree programme *Primary School Education with a Foreign Language*.

The aim of the subject is to support students in expanding their knowledge in contemporary Bulgarian language and applying their knowledge efficiently in the written and oral speech.

Course content:

The main topics are: Emphasis in the Bulgarian language; Spelling and pronunciation of vowels. Mutation of 'ya' and 'e' vowels. Spelling and pronunciation of consonants. Use of full and contracted countable form. Agreement in polite forms. Synonyms, paronyms, homonyms, antonyms. Punctuation of simple sentences. Punctuation of complex sentences.

Teaching and assessment:

The teaching is conducted in the mode lectures and seminars. In the lectures, the students acquire theoretical knowledge on spelling and speaking rules, which is consolidated further in the seminars. Various forms and methods of work are used (lecture, presentation, basic and additional exercises, different types of written exercises). During the seminars, tests for checking the quality of acquisition of knowledge. The syllabus includes individual work on research papers, covering topics assigned in advance.

Weekly classes: 1lec+2sem+0labs+0ps+se**Type of exam:** written**S03952 Foundations of Special Education****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course is intended for the undergraduate students in Pre-school and Primary School Education. It aims at familiarizing them with the pedagogical minimum of knowledge and skills necessary for successful work with children with mental, hearing, eyesight and speech disabilities. The instruction is done by means of lectures.

Course content:

The course deals with issues related to practical skills, perceptions and attitudes towards normality and disability, basic anomalies in the child's development, identifying responsibilities in teaching children with disabilities, etc. The training is directed towards a correct educational work with mentally disabled children and the means of influencing them during their upbringing and education.

Teaching and assessment:

The instruction is in the form of lectures directed at examining diagnostic methods and general features typical of children with disabilities.

Weekly classes: 2lec+0sem+0labs+0ps+ca**Type of exam:** written

SB10936 Teaching Practice in the Primary School**ECTS credits:** 3**Assessment:** preliminary exam**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care

tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeoova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: jdoncheva@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Pr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg

Pr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bg

Pr. Assist. Prof. Petya Ivanova Stefanova-Ilieva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 832, E-mail: pstefanova@uni-ruse.bg**Abstract:**

The course seeks direct involvement of students in the educational practice at school by conducting lessons in different classes of primary school.

Course content: Students deliver lessons in Bulgarian Language, Mathematics, Sports, Man and Society, Man and Nature, Arts, Music and The Class Teacher's Lesson.

Teaching and assessment: The school practice is led by a lecturer and experts in the respective methods of teaching. The students prepare a detailed plan of the lesson they are going to conduct; after that they discuss it with the teacher of the class in which they are going to have the lesson, then with the methodologist and finally with the lecturer. During the practice there is a methodologist and after the five lessons (on the same day) conducted by different students, a discussion and methodological analysis of the lessons is organized to evaluate their merits and weaknesses.

SB10937 Puppet Theatre Performing Art**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Bulgarian Language, Literature and Art

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The aim of this course is to provide students in education with knowledge and skills for performing art, tailored to the specific nature of childhood age.

The practical training allows the students to learn the methods of applying puppetry while working with children in pre-school and primary school. The course assists the solution of speech technique problems and the development of students' artistic skills as an important pre-requisite of success in their future work as teachers.

Course content:

Speech organs. Articulation. Breathing; Nature of puppetry as public art; Types of puppets; Table theatre; Stage and space. Settings and props; Types of etudes. Stanislavski's theatre; Dramatisation. Transforming the epic text into dramatic; Staging a puppet theatre performance; Perception of puppet theatre performance.

Educating children for theatre perception.

Teaching and assessment:

The course is taught through practical classes. All learners perform on stage.

SB10938 Organization of Work in Preparatory Groups or Class**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps+se**Assessment:**continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

This subject's goal is to give adequate answers to the necessity of accomplishing the entire training for entrance of the children in school and familiarizing the students with the system of educational work in preparatory groups and in preparatory classes.

Course content:

Main topics: Continuity in the Work Between Kindergarten and Primary School; Cognitive and Personal Development of the Child During The Transition; School Maturity And Willingness for School; Specifics of the Educational Forms, Methods and Approaches in the Preparatory Group/ Preparatory Class; Intellectual and Psycho-Social Training for School; Diagnostics of the Willingness for School.

Teaching and assessment:

The basic methods of teaching are the informative-explanatory and illustrative. Applied methods are the problem-oriented presentation, discussion, comparative pedagogical analysis of school materials and diagnostic methods for preparatory groups and preparatory classes.

Five tests are given during the semester, controlling knowledge acquired on the main topics. The final grade is formed based on the results of the seminal essay.

SB15201 Information and Communication Technologies in Education and Work in a Digital Environment**ECTS credits:** 3**Weekly classes:** 1lec+0sem+0labs+1ps+se**Assessment:**continuous assessment**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: voinohovska@ami.uni-ruse.bg

Pr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications. *Spread sheets:* Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering. *Presentations:* New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

SB14583 Role Plays

ECTS credits: 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Nikolina Angelova-Barbolova, MD, PhD, Department of Health Care

tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bg

Lecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Weekly classes:** 0lec+1sem+0labs+0ps+se**Type of exam:** written**Abstract:**

The aim of the behaviour role training is to expand the individual potential of the pedagogue to increase role flexibility, creative and communication skills, to enhance self-reflection, sensitivity and empathy, the ability for realistic perception of others and understanding the interdependence between the individual and the group. Behaviour role training aims at bringing about the development of certain limited aspects of human nature, so that professional and personal goals of the individual are achieved more adequately.

Course content:

The contents of behavioral role training include: a theoretical part familiarizing students with the role theory, role analysis, the theory of argumentation of the social and cultural atom of the individual, role system, role positions and behavioral role training. It presents theoretically main methods of work: sociometry, psycho-drama and socio –drama.

Teaching and assessment:

The main methods of instruction are discussion, sociometrics, socio and phycho-drama. In the course of lectures students should acquire the notions of role, role positions and role analysis; the notions are later developed in an empirical way.

Fun and Tourist Games for Students from 1st to 4th Grade**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports

tel.: 082 / 888 225, E-mail: isilieva@uni-ruse.bg**Weekly classes:** 0lec+1sem+0labs+0ps+se**Type of exam:** written**Abstract:**

The course's purpose is to enhance and systematize students' knowledge of common pedagogical, psychological and methodological courses, with knowledge how to increase the physical stamina of children's organism and their physical abilities in natural surroundings by means of interesting tourist games.

Course content:

Contemporary tendency for complex formation of children's personality. Development of the concept for healthy children by means of games in nature. Common characteristic of interesting tourist games, special features, content and method of conducting. Basic forms of work in physical culture and sport with opportunities to play games.

Teaching and assessment:

The education is acquired through a conventional lecture course in accordance to the requirements for effective training. The final grade is formed as an average grade. The essay gives an opportunity to include all the problematic areas of physical education with regard to the efficient training of the Sports teacher.

SB14585 Educative Work of Class Teachers**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The topics include organisation of activities, realisation of the aims and tasks of today's school work. There is particular stress on the technology of planning and diagnostics of the activities so that educational content of the course is carried out.

Course content:

Technology of the educative work of class teachers. Basic principles of carrying out educative work in the elementary school. Educative work as a kind of pedagogical technology. Theoretical and legislative foundations. Content of the work with the school class. Major tendencies. Educative work of the class teacher carried out through different types of activities. Essence, specific character and educative functions. Specificity, tendencies and organisation of extracurricular activities.

Teaching and assessment:

During the lecture course students get acquainted with the theoretical and also practical foundations for organisation of the educative work of class teachers. Interactive methods are used for analysing pedagogical situations in the work of class teachers. The course ends with the submission of a paper (based on one of the topics given above).

Weekly classes: 0lec+1sem+0labs+0ps+se**Type of exam:** written**SB14586 Working with Children of Unequal Status****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The goal of this course is to familiarize the students with the theoretical knowledge necessary for working with children of unequal social status. The course acquaints the students with the specific methods of training such students, as well as with the main principles and techniques of this training. The course helps students to adopt positive manner of working with children of unequal status, as well as develop definite personal values.

Course content:

Common Characteristics of Children of Unequal Status; Children with Health Problems; Children with Social Problems; Professional and Personal Skills of the Teacher Working with Children of Unequal Status.

Main Topics: Characteristics of the Types of Groups Comprising of Children with Unequal Social Status. Characteristics and Functions of the Types of Institutions involved in the Fostering and Upbringing of Children of Unequal Social Status. Educational and Socializing Parameters of the Teaching Process of Children of Unequal Social Status.

Teaching and assessment:

The course comprises of seminars. The assessment is continuous.

Weekly classes: 0lec+1sem+0labs+0ps+se**Type of exam:** written

SB14587 Modern Technologies of Educational Work in the Wholeday Organisation of the Educational Process**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Galina Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 752, E-mail: prpetrov@uni-ruse.bg**Abstract:**

The aim of the course is to outline the main aspects of the whole-day organization of the educational process; to analyze the legal basis and the changes in the Pre-school and School Education Act; to look at variants of planning for the educational process in whole-day organization of school day; to develop exemplary variants of organization and conduct of the activities in the whole-day training.

Course content:

Pedagogical and didactic projections of the teacher-educator-child / pupil relationship during the whole-day organization of the educational process. Normative basis for the whole-day organization of the educational process. Implementation of the framework program for day-to-day organization of the educational process. Good practices and guidelines for activities of organized recreation and physical activity. Didactic requirements in carrying out self-preparation activities. Planning, preparation and implementation of interest activities. Forms for the realization of active learning during the whole day organization of the learning process. Methodological solutions for the use of ICT-based activities in the pedagogical process in the whole-day training organization. Vocational orientation as part of the activities of interest in the whole-day organization of the educational process. Game activities during the whole day organization of the learning process.

Art and sport in the whole day organization of the learning process.

Teaching and assessment:

The methodology of the lectures is organized on the basis of a logical and meaningful connection of the problems on the main topics included in the curriculum. A 30-minute test was performed on the discipline. It includes questions of a theoretical and practical nature. The assessment is formed by the results of the test.

Weekly classes: 0lec+1sem+0labs+0ps+se**Type of exam:** written**S03859 Comparative Education****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The course aims at familiarizing students with the history of comparative education as a scientific direction with a great practical significance; it also explores issues about the European dimensions of education.

Course content:

History of Comparative Education In Bulgaria; Theory and Methodology of Comparative Education; Structure and Contents of Comparative Education; Educational Systems in Bulgaria, The USA, Canada, France, Germany, Russia, Turkey, Poland, Austria, Japan, Australia, China; Comparison of the Aims, Finance, Management, Structural Patterns of the Educational Systems and the Teacher Training Programs in Different Countries; The European Union and the Education in Europe; The Educational Systems in the Countries-Members of the European Union; Integrated Training of Pre-School and Primary School Teachers.

Teaching and assessment:

The course is comprises of lectures designed to reveal the comparative patterns in the structures of the different educational systems. One of the learning outcomes of the course is to develop in students an ability to put theory into practice. The final grade is based on the result of the written test

S01409 Hygiene and Health Education**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The aim of the course in School Hygiene and Health Education is to introduce students to the contemporary tendencies and advances in the study of the human health and health education in school.

Course content:

The course examines such topics as subject matter and methods of study of Health Education; historical survey. Special attention is drawn to the global and regional problems in the result of the pollution. Ecology and school. Physical development and activity. The most common diseases in early age.

Teaching and assessment:

The course comprises of lectures. Lectures are designed to introduce students to new ideas and to provide a model for further analysis.

Weekly classes: 3lec+0sem+0labs+0ps**Type of exam:** written**S01429 Pre-Diploma Teaching Practice****ECTS credits:** 11**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bgPr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 888 252, E-mail: isilieva@uni-ruse.bg**Abstract:**

The goal of the pre-diploma teaching practice is to provide students with an extended period of teaching in the school and in the kindergarten – three weeks in the kindergarten and three weeks in the primary school. Students deliver the lessons in accordance with the class schedule for the week. While doing this they are supervised by the class teacher or the teacher of the respective kindergarten group.

Course contents:

The students spend all day in the kindergarten and deliver lessons in the respective age group. They also spend a whole day in the primary school where they also deliver the lessons for the day of the specific class with which they work. Students also take part in the organisation and implementation of extracurricular activities at the school and the kindergarten – festivals, sport activities, etc.

Teaching and Assessment:

During the Pre-Diploma Teaching Practice the university methodologists observe and evaluate the lessons delivered by the students in the school or in the kindergarten. The university methodologists write the grade of each observed lesson in the Students Portfolio. After the observation of the lesson the methodologist gives his/her feedback to the student in the lesson discussion session and gives the reasons for the respective grade. The final grade is calculated by the methodologist who is the Chair of the State Examination Board as an average of the grades given by the different methodologists.

SB10944 State Written Exam in Pedagogy and Psychology**ECTS credits:** 4**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vvasielva@uni-ruse.bgAssoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bgAssoc. Prof. Silvia Alexandrova Krushkova, MA, PhD, Dept. of Social Health and Healthcare
E-mail: kroushkova@uni-ruse.bg**Abstract:**

The State Written Exam is the final procedure of the education and training of the students in the Pre-school and Primary School Education undergraduate programme. It allows students who graduate the bachelor level to demonstrate their knowledge in the pedagogical and psychological courses included in the undergraduate study programme. The aim of the State Written Exam is to allow students to demonstrate the acquired knowledge, to present their opinion on the ways of improving the education and training of kindergarten children or of primary school pupils.

Course contents: The State Written Exam comprises of a syllabus which contains 40 questions in the areas of Pedagogy and Psychology which are a summary of the courses included in the undergraduate study programme.

Teaching and Assessment:

Students sit for a State Written Exam at an appointed State Board of Examiners.

S03918 State Written Exam in Methods of Instruction in Kindergarden and Primary School**ECTS credits:** 4**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgAssoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bgPr. Assist. Prof. Valentina Todorova Radeva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 832, E-mail: vtradeva@uni-ruse.bgPr. Assist. Prof. Iskra Stefanova Ilieva, MA, PhD, Department of Physical Education and Sports
tel.: 082 / 888 252, E-mail: isilieva@uni-ruse.bg

Abstract: The state examination is complete the procedures for the training of students in Pre-school and Primary School Education. It allows students who graduate, present knowledge of different methods included in the curriculum during the semester learning. It developed two questions for the state exam. The aim is to give students what they have acquired during training and to express their opinion to optimize performance in kindergarten and primary school.

Course contents: The state exam includes: a compendium of 40 matters different methods, summarizing disipline bachelor degree course.

Teaching and Assessment:

Students sit for an state exam at the appointed State Board of Examiners.

SB10945 State Practical Exam

ECTS credits: 2**Assessment:****Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Consultants:

Assoc. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Prof. Todorka Zhekova Stefanova, MSc, PhD, Department of Health Care
tel.: 082 / 821 993, E-mail: dora@uni-ruse.bg

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg

Abstract:

The students in the Pre-school and Primary School Education undergraduate programme are provided with a 120 hours of teaching practice which are equally distributed (respectively 60 hours in the kindergarten and 60 hours in the primary school).

Course contents:

Students form pairs which work with the pupils of a specific class or they form a group and conduct lessons in the specific subjects.

Teaching and Assessment:

Each student is expected to deliver between 5 to 7 lessons in different subjects and get a mark for each of the delivered lessons by a university methodologist.

Weekly classes:**Type of exam:**

SB10946 Bachelor Thesis Defence in Pedagogy, Psychology and Methods of Instruction

ECTS credits: 8**Assessment:****Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Consultants:

All lecturers from the Department of Pedagogy, Psychology and History

Abstract:

The Bachelor Thesis is developed independently by the students under the supervision of a university lecturer. The aim of the Bachelor Thesis is to give students an opportunity to demonstrate the knowledge and competences acquired during the study. Students are also given the opportunity to demonstrate their creativity in the development of the Bachelor Thesis and to present this thesis successfully at the State Examination Board.

Course contents:

The Bachelor Thesis explores a specific topic or an area of the compulsory courses studied during the undergraduate training.

Teaching and Assessment:

The Department of Pedagogy, Psychology and History provides:

- the overall organization of the collection, confirmation and the announcement of the Bachelor Thesis topics;
- the allocation of the Bachelor Thesis topics to individual students and the appointment of their supervisors;
- the supervision, the preparation of the evaluation review and the presentation of the Bachelor Thesis

The supervisors give consultations of the students every week. Then they monitor the performance of the students on the given tasks. Students present their Bachelor Thesis to a State Examination Board at the end of their final year at the university.

**UNDERGRADUATE
STUDIES
IN
SOCIAL PEDAGOGY**

**PROFESSIONAL STANDARDS
OF A BACHELOR IN SOCIAL PEDAGOGY**

Degree Programme: **Social Pedagogy**
Educational Degree: **Bachelor**
Professional Qualification: **Social Pedagogue**
Term of education: **4 years (8 terms)**

1. General skills

The education of future professionals gives opportunity for acquisition of knowledge in pedagogy, psychology, sociology, law, medicine, information technologies and professional-practical preparation. They are basis for deployment of specific and broad professional skills for pedagogical work with children, adolescents and adults. In the end of education:

- The students acquire knowledge and skills for social work with the needy children, pupils and adults, independently on their ethnicity, socio-economical status, differences in their physical and mental potential;
- They form erudition and abilities for cooperation between institutions for socio-pedagogical work;
- Gain erudition and skills for using of contemporary information and communicative technologies in social sphere;
- Build skills for scientific research and diagnostic activity in an area of social pedagogy.

2. Specific skills:

After completing of the bachelor's degree the students will have the following specific skills:

- Research and analysis the social status on groups of population in national and regional context;
- Screening, registration and support for individuals and families that according to the current legacy are social disadvantaged or/and disabled;
- Targeting for inclusion in home respite or for accommodation in specialized social care establishments;
- Preparation of documentation on social case;
- Control of observance of normative documents and spending for social insurance;
- Conducting and analysis of research information for different social cases;
- Defining the categories of work and basic income in case of a retirement;
- Management of the educational process in specialized social establishments;
- Methodological organization and control of activities in social institutions; socio-pedagogical work with neglected persons and children with special educational needs;
- Advising clients on issues of social adaptation, re-socialization and rehabilitation;
- Coordination of activities between particular establishments, as well as inter-institutional links.

In the process of education the students have opportunity to choose different specializations for work with persons in third age, children, adolescents, young people and families in risk.

3. Additional skills:

These skills will be acquired throughout the education and include capabilities such as:

- Skills in team work;
- Following of appropriate practices within professional, legal and ethical frameworks;

- Discovery of mechanisms for permanent professional development and lifelong learning;
- Setting and solving of creative tasks within the individual capabilities.

Certified in the specialty may work **as social educators** in boarding, social establishments (orphanages, homes for children with psycho-physical disturbances, home for elderly people), in “Social care” to municipalities, Respite, labours, Children Pedagogical Room to the Police (after additional qualification), Social Pedagogical Centers, as social pedagogue in structure of management bodies (Ministry of Labour and Social Policy, Ministry of Health and Ministry of Interior) and NGOs.

After successful completion they receive the academic degree Bachelor and professional qualification social pedagogue. Under certain conditions they may continue their education to obtain the Master pedagogue’s degree.

**CURRICULUM
OF THE DEGREE COURSE IN SOCIAL PEDAGOGY**

((THE SECOND, THIRD AND FOURTH YEAR STUDENTS ARE TRAINED FOLLOWING THIS CURRICULUM))

First year

Code	First term	ECTS	Code	Second term	ECTS
S00516	Introduction to Social Pedagogy as an Academic Discipline	1	S01073	Principles of Social Pedagogy and Social Work	6
SB14589	Theory of Education	4	SB14591	Pedagogical Communication	1
S00740	Didactics	4	SB14091	Modern Bulgarian Language (Phonetics and Lexicology)	3
S00873	General Psychology	5	SB14592	History of Social Pedagogy	5
SB14538	Inclusive Education	3	S01090	Civil Education	3
SB14590	Ethics	4	S01095	Legal Protection of the Child and the Family	3
SB14890	Economics of Social and Institutional Infra-structures	5	S01054	Sociology	5
SB15046	Anatomy and Physiology	4	SB15200	Information and Communication Technologies in Education and Work in a Digital Environment	2
Elective courses (students elect a course)					
			SB14593	Conflict Management and Resolution	2
			SB14594	Penitentiary Education	2
			SB14593	Foster Care and Adoption	2
Total for the term:		30	Total for the term:		30
SB13965	Sports	1	SB13965	Sports	1

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
S03867	Age Psychology	4	SB14596	Social-Pedagogical Diagnostics	6
S01204	Social Medicine	2	S01222	Social Policy and Legislation	5
S01205	Methods of Social Work	6	SB14597	Special Pedagogy and Special Psychology	5
S01207	Family Pedagogy	6	SB14598	Social-Pedagogical Work in School	4
S01208	Social Psychology	6	SB14599	Practicum: Formation of Communicative Abilities	3
S01209	Children's and Adolescent's Psychopathology	2	S01227	Observation Practices in Social Educational Institutions	3
S01210	Modern Bulgarian Language 2 (Morphology and Syntax)	3			
Elective courses (students elect a course)			Elective courses (students elect a course)		
S01211	Pedagogy of Leisure Time	1	SB14601	Management and Marketing in the Education and Social Sector	2
S01214	Social Group Work. Group Therapy	1	SB14601	Integration of Individuals with Special Educational Needs	2
S01216	Aesthetics	1	SB14601	Methodology of the Work of the School Counsellor	2
SB14595	Children's Rights	1	Elective courses (students elect a course)		
S01219	Educational Work with Children and Youth Communities	1	SB14603	Methodology of the Work of the Resource Teacher	2

			SB14604	Social Work with Disadvantaged Children	2
			SB14605	Socialisation and Resocialisation of Children and Young Adolescents	2
		Total for the term:	30	Total for the term:	30
SB13965	Sports	1	SB13965	Sports	1

Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
S01234	Andragogy	7	SB14608	Geragogy	5
S01235	Social-Pedagogical Work with Children and Adolescents in Risk	3	S01298	Management of Social-Pedagogical Institutions	6
SB14606	Social Work with Adults and Disabled	7	S01238	Art Therapy	5
S01254	Career and Professional Development	4	SB14609	Pedagogical Psychology	4
SB14891	Human Resource Management	2	S01308	Summer Pedagogical Practice	4
S01259	Training Practice in a Socio-Educational Institution	3			
Elective courses (students elect a course)			Elective courses (students elect a course)		
S01286	Role Training	3	S01309	Gameplay and Occupational Therapy	3
S01275	Group Therapy	3	S01288	Prevention of Crime, Drug Addiction and Violence	3
S01276	Family Therapy	3	S01311	Ways of Working with Children with Deviant Behaviour	3
			S01312	Stress and Psychological Health	3
Elective courses (students elect a course)			Elective courses (students elect a course)		
SB14607	Foundations of Supervision	1	SB14581	Religion and Education	3
S01277	Social Work with Ethnic Groups	1	SB14580	History of the Ethnic Groups and Religious Communities in Bulgaria	3
S01310	Protection Against Calamities and First Aid	1	S00615	Principles of Christianity	3
	Total for the term:	30		Total for the term:	30
SB13965	Sports	1	SB13965	Sports	1

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
SB14610	Social and Pedagogical Counselling and Advising	6	S01409	Hygiene and Health Education	3
SB11067	Permanent Education	3	S01428	Comparative Education	3
SB14611	Occupational and Social Rehabilitation	3	SB11072	Pre-Diploma Practice	10
S01343	Social and Psychological Training	3	S01430	Self Preparation for Graduation	4
SB14612	Practicum: Design of a Social and Educational Project	4	Graduation		
SB10935	Culture of the Speech and Behaviour	4	SB10945	State Practical Exam	1
SB11071	Current Pedagogical Practice	4	Graduation (students elect one of the procedures)		
S02639	Audio-Visual and Information Technologies in Education	3	0945	State Written Exam in Social Pedagogy	9
			1441	Bachelor Thesis Defence	9
	Total for the term:	30		Total for the term:	30
S00072	Sports	1	S00072	Sports	1

Total for the course of study: 240 ECTS credits

0516 Introduction to the Academic Discipline**ECTS credits:** 1**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History,
Faculty of Science and Education**Lecturer:**Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: biieva@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The course aims to acquaint students with Social pedagogy as an academic discipline and its application. The students will be informed about the types of social services that are provided in the community and specialized institutions, including the city of Ruse, where the course practice will take place. It will also present the state policy in providing social services for children and persons in the country.

Course content:

Acquainting students with state policy on social issues in the provision of social services for children and persons. The line of development of social services in Bulgaria to assist families to cope with the problems they experience in a community. Therefore, students will be informed about the new social services open to help children and persons (Article 36 of the Rules for Implementing the Law on Social Assistance) in the country and in the Municipality of Ruse. The topics included in the course facilitate the broadening of students' knowledge about the content, scope and development of social services.

Teaching and assessment:

Three visits to insitutions providing social services on the territory of the Ruse Municipality are organized and held under the supervision of the course tutor. The course is validated if the students have prepared and submitted the assigned written work and it depends on their participation in the classroom discussions.

0739 Theory of Education**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The objective of the course is to present, in a systematic way, the problems of the theory of education as part of General Pedagogy. A starting point of teaching is to consider upbringing as a kind of social reality and a kind of intercourse relation as well as an object of the theory of education. The course accentuates on the models of up-bringing, on the specific conceptual apparatus of the subject and the up-bringing as a pedagogical activity and an active process with its complicated relations, contradictions and technologies.

Course content:

Character of Upbringing as a Socio-Pedagogical Phenomenon, Its Functions and Structural Components; Approaches, Principles, Methods, Means, Forms and Factors for Successful Education; Relations Between Content and Aim of the Educational Process, Between Preventive and Re-Educative Activities, Prognosis and Leading of Educational Precess.

Teaching and assessment:

The lecture course comprises traditional and heuristic ways of presenting new information. The seminar classes involve case studies and teacher-led discussions. Students should do reading before each seminar. The exam involves answering two questions with a different level of difficulty.

0740 Didactics**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

Didactics has an important role for the professional development of the students. The course aims to introduce future social pedagogues to the subject matter in a systematic way; reveal the most topical problems in the development of the Didactics; analyzes the procedural and functional character of education.

Course content:

Scientific Status of Didactics; Character of the Teaching Process; Principles of Teaching; Methods of Teaching; Systems of Organizing of the Teaching Process; Common Teaching Problems; Individualization and Differentiation of Education; Tutoring; Work with Disadvantaged and Gifted Students.

Teaching and assessment:

The course is taught by combination of lectures and seminars. At seminars the dialogic method is widely used; the course tasks on the topics included in the syllabus are discussed. Active participation is encouraged by awarding students additional points.

0873 General Psychology**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Abstract:**

The aim of the course in General Psychology is to recognize students with contemporary trends in the science for development of human psychic.

Course content:

Subject And Object, Methods of Psychology, Historical Review, Contemporary Issues of the Science, Psychological Trends and Conceptions, etc. An emphasis is put on: The Personality and Activity Theory in Psychology, The Structure of Personality, Self-Regulative Mechanisms, Reflexion and Interpersonal Interactions. It reviews the characteristics of the psychic processes, abilities and conditions; development of intellectual, emotional and will, motivational spheres on personality.

Teaching and assessment:

The teaching is based on traditional an ex-cathedra method with options for interactive discussions of some issues. The course assignments are administered at the start of the term. The students must read the given materials and express the opinion of the authros as well as their own opinion on the topics given as course assignments.

0878 Philosophy**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 0885 208 265, E-mail: mzheliazkova@abv.bg**Abstract:**

The purpose of the course in Philosophy is to introduce students to the basic moments of the progress of the philosophic thought and to the philosophical problems of the spiritual life of modern society. An overall aim of the course is to help broaden students' outlook.

Course content:

Historical Development of Philosophy: Classical, Medieval, Modern and Post Modern Philosophical Schools and Theories; Contemporary Philosophical Tendencies, Mainly in the Western European Philosophical Thought; Survival of the Human Civilization and the Freedom of Personality.

Teaching and assessment:

Teaching is conducted by means of lectures and seminars. Students are expected do additional reading on the work of prominent philosophers. Seminars are designed to reinforce information introduced at lectures; discussions are welcome.

1018 Ethics**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

Ethics is based on the general- philosophical knowledge and reflects the peculiarity work practice its subject of study being both the object and the subject of labour. The course aims to: present th system of knowledge related to the main philosophic and ethical categories and to show their practical significance. To form skills for developing of a better professional environment. To provide students with alternatives for self-knowledge and professional development.

Course content:

Origin Of The Morals; Object and Tasks of Ethics; Apparatus of Categories; Moral and Ethic Issues in Education. The Relationship between the Social Educatoe and the Factors Taking Influence over the Upbringing and Aducation of the Children.

Teaching and assessment:

The course is taught in the form of lectures and seminars. During the course students are provided with examples and models related to non-traditional learning in the form of trainings and games which include interactive methods. Students are given tasks for individual work which cover the topics discussed at the lectures. Depending on their personal preferences and on the references given students could choose a topic for their individual work. The course tutor approves the topics and the ready assignments are evaluated on the basis of approved criteria.

1042 Economics of social and institutional infrastructures**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Economics

Faculty of Business and Management

Lecturer:

Prof. Krasimir Ivanov Enimanev, MEcon, PhD, Department of Economics

tel.: 082 / 888 704, E-mail: kenimanev@uni-ruse.bg

Assist. Prof. Svetoslava Krasimirova Enimaneva, MEcon, Department of Economics

tel.: 082 / 888 704, E-mail: senimaneva@uni-ruse.bg**Abstract:**

The goal of this subject is to ensure eruditions in two directions - institutional and social infrastructures.

Course content:

The Nature, Object and Subject of the Discipline; Content; Goals and Tasks; Structure and Infrastructure of National Economics; Functional Types Infrastructures; Organization and Function of Management. The Principles of Organizational Structuring; Technology and Methods of Prognostic; Policies, Advantages and Strategies, etc.

Teaching and assessment:

The teaching includes multimedia presentations, illustrations of the teaching material through the use of posters, etc. The active involvement of students on the different topics is achieved through the provision of case studies included in the course syllabus.

1201 Anatomy and Physiology**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Public Health and Social Activities

Faculty of Public Health and Health Care

Lecturers:

Assoc. Prof. Lilia Asenova Todorova, MA, PhD, Department of Public Health and Social Activities

tel.: 082 / 821 993, E-mail: litod@uni-ruse.bg

Dr. Sevdalin Petrov Angelov, MD, PhD, Department of Public Health and Social Activities

tel.: 0887 606 016, E-mail: sevdalinang@yahoo.com**Abstract:**

The course is designed for students from the undergraduate study programme in Social Pedagogy in the first year of their education. The aim is to acquaint the students with the structure and functioning of human organs and the systems of the human body.

Course content:

The course places an emphasis on the age modifications in the morphological and functional condition of the human body systems. The knowledge of the morphology and functioning of the human body in the different age periods is of great importance for the correct organization of the interaction with children, for the design of their daily activities and daily schedule and for the organization of their work and rest. The incorrect organization of these activities could lead to different pathological disorders in the functioning of the nervous system, the locomotory system, the cardiovascular system, etc. A special emphasis is placed on the morphology and functioning of the nervous system which is considered fundamental for the understanding of the psychological processes and the formation of pedagogical knowledge and skills.

Teaching and assessment:

The course is made as an ex-cathedra method of teaching with many illustrations and use of interactive methods. The seminars give opportunity for reinforcement and understanding of the course topics by stimulating the cognitive activities of the students.

1073 Principles of Social Pedagogy and Social Work**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The curriculum contributes for fundamental preparation and erudition of students from specialty Social pedagogy. The course includes two main blocks: I – topics in the field of Social pedagogy; II – contemporary trends in social work. Themes from both sections have cognitive and practical orientation. The content of the social work includes diagnostic, organizational, educational, preventive, corrective activities in specialized social establishments for children and adults. Students are represented to the methodological basis of social work, social support of individuals, groups and communities.

Course content:

Arising and development of social pedagogy. Methods, approaches and principles of social pedagogy. Socialization and upbringing. Personality development. Personal profile of social pedagogue. Theoretical fundament and descriptive models in social work. Arising and development of work. Social work as theory, methodology and practice, etc.

Teaching and Assessment:

The method of teaching is based on an ex cathedra method of lectures. The assessment is the average sum of the paper work and written exam.

1077 Pedagogical Communication**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The course is of empirical nature. The main aims and tasks are focused towards the rationalization and explanation on ideas for democratization and humanization of pedagogical process that in turn figures active and complete interaction. Pedagogical communication is important factor for creating of necessary circumstances for collaboration between teacher and students.

Course content:

The Social Nature of Communication. Communication as a Factor for Personality Development. Nature and Issues of Pedagogical Communication. Dialogical Nature of Communication. Functions of Communication in Education. Main Types of Communication. Organization and Management of the Interaction of Pupils in during Team Work. Characteristics of the Verbal and Non-verbal Communication of the Teacher. Characteristics of the Communication of Children of Different Ages.

Teaching and assessment:

The course has a research and practical purpose. A variety of practical examples from the work of teachers are presented. Some of the research studies of Bulgarian and foreign researchers are presented. Different communication skills tests are administered and students' initial knowledge for pedagogical training is developed. The seminars extend the topics of the lectures

1084 Modern Bulgarian Language (Phonetics and Lexicology)**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Arts
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 347, E-mail: rrusev@uni-ruse.bgAssoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg**Abstract:**

The course aims to introduce students to: 1) the science of speech which integrates knowledge of the processes of speech production and perception, acoustic and articulatory characteristics of speech sounds and the supersegmental structure of the speech flow; 2) the science of the lexical system of Bulgarian language by revealing the gnoseological, semiological and semantic features of lexical units, their systematic relations and usage in the different styles of speech; 3) methods and approaches to phonetic and lexical analysis. The course is closely linked to the following courses: *Linguistics*, *Morphology* and *Syntax*.

Course content:

Object of Study and Tasks of Phonetics and Lexicology. Acoustic, Articulatory and Functional Aspects of the Sound. Segmental and Supersegmental System of Modern Bulgarian Language. Nature and Characteristics of the Word as a Linguistic Sign. Semantic Variety of the Word. Systematic Lexical Relations. Characteristics of the Bulgarian Vocabulary. Structure, Classification and Characteristics of Set Phrases. Subject and Tasks of Bulgarian Lexicography.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Two continuous assessment tests are administered during the term. The final exam is written.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written**1085 History of Social Pedagogy****ECTS credits:** 4**Assessment:** exam**Department Involved:**Department of Pedagogy Psychology and History
Faculty of Natural Sciences and Education**Lectures:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The goal of teaching is broadening the scientific horizon of the future specialists in social pedagogs alongside improvement of the quality of their theoretical training. The themes included contribute to the formation of knowledge about: origin and development of social-pedagogic ideas from Antiquity to today.

Course contents:

The following main themes are included: Stages of the Development of Social Pedagogy. Emergence of Education as a Social Phenomenon. Education in Primitive Society. Social Education in the Antiquity. Problems of Social Education in the Middle Ages. The Influence of Humanism on the Development of Social Pedagogy. Development of Leading Trends of Social Pedagogy during the 17th – 20th century. Modern Stages of Social Pedagogy Theory and Practice. The Development of of Social Pedagogy in Bulgaria.

Teaching and Assessment:

Lectures are carried out in the ex-cathedra method with illustrations and descriptions of the different points of view of educationalists from Antiquity to modern days. Various texts for discussions are give during the seminars. The final mark is based on the results of the exam test and the course assignment.

1090 Civil Education**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

Civil education is a discipline that is going to answer to the huge changes in the global world. It is filling up a gap in the system of actual educational elements. According to the place of Bulgaria and Bulgarian education and upbringing in the EU and worldwide, it can be seen that students should pay more attention to thinking out of the dualistic worldview and to adopting a more responsible behaviour.

Course content:

The accents in the discipline are placed on the essence of democracy, rights and responsibilities of citizens, the functions of authority – local and central, the processes of globalization and integration.

Teaching and assessment:

The method of teaching is an ex-cathedra method of lectures. The scholarly essay is being given after the students are familiar with part of the course material – in the 3rd week after the beginning of the term. They can choose from the list of the suggested topics by the course tutor depending on their own preferences. When students are ready with the essay, they present it to their peers in the classroom..

1095 Legal Protection of the Child and the Family**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Elitsa Kumanova Valcheva, ML, PhD, Department of Public Law
tel.: 082 / 888 740, E-mail: ekumanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: ilieva@uni-ruse.bg**Abstract:**

The course's aim is to acquaint students with major internal regulations in the area of the legal protection of children and the family, to interpret and analyze their values and their implementation in society. These norms for protecting human rights and fundamental freedoms are of interest to both different specialists from various fields and to each citizen of Bulgaria.

Course content:

The course includes 11 topics and corresponds to a maximum level with the objectives of the course, i.e. to introduce students to the interdisciplinary issues of human rights. The goal is to raise awareness and students' ability to individually implement the mechanisms to children and family protection of rights. These protection mechanisms and fundamental freedoms are of interest to both different specialists from various fields and to each citizen of Bulgaria.

Main topics: Flashback on the Child Care and Welfare Reform for Children's Well-Being In Bulgaria. Legislation in the Republic of Bulgaria in the System of Child and Family Protection - Law on the Child Protection and the Regulations to It. The Strategy for Children for the 2008 – 2018 Period. Family Code. Ordinance on the Conditions and Procedures for Application, Selection and Approval of Foster Families and Placing Children to their Care, etc.

Teaching and assessment:

The course is in the form of lectures which include analysis and discussion of the topics. During the lectures problem issues related to the situation, attitudes and current problems on children's rights are discussed.

1054 Sociology**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Velichko Kerchev Panteleev, ML, PhD, Department of Public Law

tel.: 082 / 888 740, E-mail: vpanteleev@uni-ruse.bg

Pr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 0885 208 265, E-mail: mzheliazkova@abv.bg**Abstract:**

The purpose of the course is to provide the students with basic knowledge of the paradigm system in sociology and its major concepts. Attention is drawn to the behaviouristic world of the common characteristics of social behaviour and methods of sociological studies. Social structures, patterns and stratification are thoroughly discussed. Emphasis is placed on the institutional structures: family, education, science, mass media, etc. as major social institutions. Study of daily routines, practice and socialization of individuals. Considerable attention is given to the problems associated with deviant behaviour, social control, small group behaviour, social organisation and conflicts.

Course content:

Introduction to Sociology. Major Sociological Paradigms: Social, Subjective-Humanistic and Marxist. Subject of Sociology, Major Theoretical Trends – Fundamental Problems. Methods of Social Research. Social Studies. Social System. System Paradigm and Patterns of Development. Social Mobility And Marginality. Institutional Structure and Social Institution. Family, Education, Science, Mass Media as Social Institutions. Mass and Collective Behaviour. The Crowd Theory. Social Movements. The Society as a Subject Matter of Microsociology. Characterisation of Everyday Activities, Life and Speech Practice. Fiction and Gesticulation. Socialisation of Individuals.

Teaching:

Lecture topics give students opportunity to establish a solid theoretical foundation of the basic concepts of sociology. The students are admitted to an examination after having participated actively in seminars, and after having submitted and defended their personally assigned papers. For their participation in seminars and successful defence of papers, they get two grades respectively. In the final procedure – examination – each student writes on two theoretical topics, regulated in an examination list of topics, submit their answer, which is then graded. The final exam grade of each student is calculated as the average of the three grades.

1049 Audio-visual and Information Technologies in Education**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Stoyanova Atanasova MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 754, E-mail: datanasova@ami.uni-ruse.bg

Assoc. Prof. Valentina Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bg**Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications. *Spread sheets:* Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering. *Presentations:* New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment: The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a notification "Pass" or "Not Passed". It is decided on the basis of 10% of student's performance during the course and 30 % for each task result.

1195 Conflict Management and Resolution**ECTS credits:** 2**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lectures:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The purpose of the course is students to assimilate systematic knowledge about the conflict as a phenomenon and also to be introduced to the today's methods about its avoidance and solution. This knowledge will let the students acquire new knowledge about the conflict as an universal process as well as give meaning to the knowledge acquired though the whole master's course from the point of view of this science and use it in practice, too.

Course content:

The main themes included in the contents are: Conflict as a Psychological Concept; Dialectical Theory about Conflict; Diagnostics of Conflict; Types of Conflicts; Development of Conflict; Styles of Conflict Behaviour – Strategies and Methods; Running of Conflict; Solution of Conflict; Pyramid of Conflict; Principles of Avoidance of Conflict; Technology for Controlling of Conflicts in Pedagogical Interaction; Building Models of Pedagogical Conflict Situations.

Teaching and assessment:

The final grade is formed as a result of students' achievement on a test which covers all studied topics.

Weekly classes: 2lec+0sem+0lab+0ps**Type of exam:** written**1196 Modern Educational Technologies****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The course covers scientific topics and contemporary aspects of educational technologies that are implemented in the education and qualification. In the forms of training the students gain knowledge and skills on the types of technologies, their content and real conditions for their implementation.

Course content:

The course contains topics related to the socio-economical aspects of the teaching profession and qualification, professional orientation and continuous development. The course of lectures complies to the professional standards of the professional field of Pedagogy. Traditional topics are defined on the basis of the problems of classical didactics and education, as well as on the basis of the contemporary conditions for the educational content of qualification and requalification courses for adults. The course of lectures presents the scientific views of the technologies used in pedagogy and andragogy.

Teaching and assessment:

The methodology of conducting the lectures is based on the logical development of the content of the main topics included in the course. The course is validated if students have attended 50% of the lectures. The continuous assessment is formed after the students present a scholarly essay and have sat the end of the term test. The test includes questions from both fields discussed during the lectures – the educational technologies and qualification.

1141 Society, Culture, Values**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Prof. Todor Petrov Todorov, MA, PhD, Department of Psychology, University of Sofia

E-mail: tedy_far@uacg.bgPr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Lecturers:**

Prof. Todor Petrov Todorov, Department of Psychology, University of Sofia

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course aims to familiarize students with the core of systematic knowledge about the nature of human society as a sustainable system of human relations and social media for personal fulfillment, culture as a product of social activities and values. Analyzed the economics of social relations, as well as the specific features of the legal, political, moral and religious relations.

Course content: Particular attention is paid to the problem of the nature and mechanisms of formation of human values, differentiated approaches, methods and results of their application. Proposed behavior without value conflicts. Discuss is the overall record of individual behaviour in all analyzed structures of social life.

Main Topics: Human Nature; Roots and Foundation of Social Relations; Relations of Use and Property Relations of the Means of Production; Division of Labor and Occupational Differentiation; Distributional, Historical Forms of Social Relations Types; Social Structures in Extra-Economic Sphere; Basic Social Spheres of Social Life, Morality, Justice, and Other Normative Systems; Religion - Origin, Nature, Tradition and Future; Values – Characteristic Features and Mechanism of Formation; Human History in the Cultural Fusion of Modern Civilization.

Teaching and assessment:

The course covers a set of lectures supplemented with illustrations and the implementation of research methods. Students are active participants in the discussions and in the development of logical conclusions based on the presented problems. Students are given the opportunity to ask questions and share alternative solutions to the problems discussed.

3867 Age Psychology**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalipieva@uni-ruse.bg**Abstract:**

The course aims to introduce the future social workers to the peculiarities and regularities concerning the development of individuals from childhood and adolescence.

Course content:

The course contains the following basic components: A theoretical part, which focuses on the mental processes, features and states of children's personality; an experimental part that explores the methods and techniques of observation and processing of data collected during psycho-diagnosis tests. The accent is upon the problems of development of children's psychic.

Teaching and assessment:

The technology of teaching reflects the objective of the course to introduce students to the methods of working with and handling verbal, figural and pictorial tests for psycho-diagnosis of children of primary school age. The lectures are problem-oriented and have a discussion character.

1204 Social Medicine**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Assoc. Prof. Kiril Panaiotov Panaiotov, MD, PhD, Department of Health Care

tel.: 0888309621 E-mail: zkm@abv.bg

Assoc. Prof. Nikola Emilov Sabev, MD, PhD, Department of Health Care

tel.: 0878823288, E-mail: nsabev@uni-ruse.bg**Abstract:**

The goals of this discipline are to give basic erudition of contemporary conceptions for health and disease, as well as social factors facilitating individual and community's health. The teaching will provide knowledge for socio-medical problems of risk groups with stress pointed on children and youth.

Course content:

The teaching of Social Medicine introduces ideas for prophylactic of diseases and health promotion and has for goals to contribute to formatting of skills for promotion activity for social health and support healthful manner of life on individual level.

Teaching and assessment:

The method of teaching is based on an ex cathedra method of lectures, that contains the most contemporary researches in the science. PowerPoint presentations, normative acts, results from studies are presented to students. The students have to elaborate paper work.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written**1205 Methods of Social Work****ECTS credits:** 6**Assessment:** examination**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219; E-mail: ilieva@uni-ruse.bg**Abstract:**

The course concerns problems of scientific reasoning and formation, professional and practical use of technologies and methods of social work in social activities. It presents modern scientifically applied approaches of national, European and global significance in the analysis and interpretation of the methodological features of the main technological and methodological structures in social work. Educational content is an important element in preparing students and a significant contribution to enhancing their professional training and culture.

Course content:

Technology of the Social Work in the System of Social Technologies, Types of Technology in the Social Work, Technological Processes in the Social Work, Technical Specifications of the Main Models of Social Work, General Technology of Social Work (Social Diagnosis, Social Expertise, Social Therapy, Communication Technology, Social Prevention, Social Rehabilitation, Counseling and Mediation, Technology of Anti-Discrimination Anti-Oppressive Social Work), Interview and Talk as Social Work Methods, Classical Methods of Social Work – Social Work With Individuals, Social Work With Groups, Social Work in the Community.

Teaching and assessment:

The educational content is based on an analytical approach. Meaningful and specific features of technology and methods of social work formed in the process of its development in modern conditions are derived. During the semester students work on independent research task (coursework) on a given / chosen topic. The course ends with a written exam and the final grade includes components of different value – overall grade on the participation during the seminar classes – 10 %; grade on the continuous assessment tasks – 10%; grade on the course work – 20 %; grade on the written exam – 60%.

Weekly classes: 2lec+2sem+0labs+0ps+1ca**Type of exam:** written

1207 Family Pedagogy**ECTS credits:** 6**Assessment:** examination**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

Acquainting students with basic demographic and sociological concepts, current state of the demographic situation in Bulgaria and worldwide and with the perspectives and current trends in the development of family forms of cohabitation from the perspective of sociology.

Course content:

Topics included help to expand students' knowledge about the nature, types, structure, function and historical development of the family as a social unit. Some topics are focused on knowledge about the dynamics of the content of the concepts in the context of change in social norms governing family relationships. Analyse trends and current marital status and the role of parent education and family lifestyles in the context of preparation for family life.

Main topics: Nature, Evolution, Functions of the Family. Theories of the Family – Historical and Critical Analysis. Theoretical Approaches to the Family. Family Life and Its Diversity. The Role of Family Structure. Family Gender Education. Family and Children in the Scale of Modern Values. The Family as an Environment for Socialization. Family Upbringing and Lifestyle. Educational Styles of Family Educational Goals of the Family. The Pedagogical Power of the Parent. Communication in the Family. Errors in Family Education.

Teaching and Assessment:

Training of students takes place in the form of lectures and seminars, the main themes are illustrated by recent statistics from sociological and demographic studies to be analyzed and discussed. During the lectures and discuss issues related to the nature of family education, and trends and dynamics of the family as a kind of social unity.

1208 Social Psychology**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Lecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

The discipline Social Psychology has theoretical and practical pattern. The main purpose of the course is an achievement of knowledge about various issues of the Social Psychology. By interactive forms of education it is sought a formation of skills for communication, for analysis and assessment of their quota, as well as an accomplishment of social prevention and rehabilitation.

Course content:

The Social Core of Communication. Social Groups. Interpersonal Relationships in the Social Group. Leadership. The Large Social Group. Mass Psychic Phenomena and Behaviour in Situations of Calamity. Rumours as a Form of Mass Behaviour. Social Movements. Methods, Tools and Procedures for Social-Psychological Research.

Teaching and assessment:

The course has research and practical orientation. There are presentations and real cases from the practice of the pedagogues. It is indicated studies of researchers from Bulgaria and abroad. It is introduced tests and questionnaires for assessment and self-assessment of personal attributes that are responsible for social behaviour. The seminars are extension of an ex cathedra method of teaching.

1209 Psychopathology of the Child and Adolescent**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Nikolina Angelova-Barbolova, MD, PhD, Department of Health Care

tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bg

Lecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

The aim of the course is acquisition of the knowledge for specific characteristics, regularities and deviations in psychic development of the children and adolescents.

Course content:

Theoretical part of the discipline reviews the nature and origin of diseases in psychic condition. It clears up the disturbances in general psychopathology and specific disorders in school competencies, emotional and behavioral disorders.

In seminars the stress point is onto social functioning and integration of the children and adolescents with deviations. The applying of psychometric tests forms skills for observation and analysis of the data.

Teaching and assessment:

The theoretical part is based on an ex cathedra method of teaching. The seminars has empirical orientation. The assessment is with test for achievements.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written**1210 Modern Bulgarian Language II (Morphology and Syntax)****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082/ 888 473, E-mail: pometkova@uni-ruse.bg

Pr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,

tel.: 082/ 888 612, E-mail: kamarini@uni-ruse.bg**Abstract:**

Grammar with its two branches - Morphology and Syntax, is the science about language. Morphology studies the structure and grammatical meaning of words. Syntax is the science about the structure of coherent speech. There is a special emphasis on the significance of syntax for the mastering of punctuation. Its connection with intonation helps students develop correct, accurate and expressive speech.

Course content:

Definition of the Term "Word" as the Subject of Morphology; Parts of Speech. Subject Matter of Syntax; Combination of Words, Classification of Simple Sentences; Main Parts of the Simple Sentence; Subject; Predicate; Secondary Parts of Two-Compounded Sentences; Object; Adverbial Modifiers; Definition; Apposition; The Attribute; Syntactic Realisations Of The Parts Of Speech; Parenthetical Syntax Units; Complex Sentences; Complex Composed Sentence – Types; Complex Compound Sentences – Types; Multicomponent Complex Sentences.

Teaching and assessment:

The course is taught in the form of a combination of lectures and seminars. At the end of the term there is a written exam, which includes also a practical part.

1211 Pedagogy of Free Time**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The course aims to introduce the future social workers to the different aspects of the problem of free time and its rational use.

Course content:

The course contains the following basic components: a calendar forms of free time – secular and religious holidays, festivals, carnivals, sports, annual leaves, travels and its everyday forms during the “time after work” – communication in family, with friends, random communities; visiting institutions for leisure (museum, theatre, cinema, community center, sport etc.).

Teaching and assessment:

The technology of teaching includes monologue presentation and opportunities for sharing knowledge and skills, related to the experience of students. There are conditions for dialogue, discussions, play, work in groups.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**1214 Social Group Work. Group Therapy****ECTS credits:** 1**Assessment:** continue assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bgPr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The course has cognitive and practical meaning for the adaptation of students to the profession of the social pedagogue. Its content includes specific techniques for interaction and interrelation of individuals, communicating in a group, united according to their interests, aims, necessities, personal problems.

Course content:

The topics refer to the different aspects of group work in the social field. A central place have the concrete demands towards the group work efficiency as a social help support in the specialized institutions. The tendencies in the group help of various client categories are also being analyzed. Main subjects: Social-Psychological Characteristics of the Group. Therapeutic Factors; History and Modern Conditions of Group Work; Classification of the Groups for Social and Psychological Support; Group Work – Methods and Techniques; The Group Work Process. The Group Leader Role; Family Group Conference; Group Supervision; Group Help of Children and Youngsters in Risk.

Teaching and assessment:

The course of lectures has the aim to teach the students basic knowledge of the group work as an active method for interaction and interrelation of individuals in a group. The contemporary displays of group work with separate categories of clients are considered. An emphasis is put on the instructive, remedial, preventive activity of the social pedagogues in group work situations.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

1216 Aesthetics**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History

tel.: 0885 208 265, E-mail: mzheliazkova@abv.bg**Abstract:**

The purpose of the lecture course is to clarify questions, concerning the beautiful and the sublime, the tragic and comic, the substance of art and its regularities and specifics. The course helps students develop aesthetic appreciation and criteria and broaden their aesthetic culture.

Course content:

The questions examined in the course can be divided into four groups. The first group includes topics on the history of aesthetic thought; the accent is on the life and work of aestheticians with a long-lasting influence on human thought. The second group deals with the basic aesthetic categories: the beautiful, the sublime, the tragic, the comic, etc.; students should develop both theoretical and practical skills for recognizing them in life, nature and art. The third circle of questions is directed to the problems of the arts - poly-functionality, art forms, etc.

Teaching and assessment:

Assessment: continuous assessment; it involves students answering 2 questions in writing. The term is validated only if classes have been attended regularly.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**1217 Pedagogic Anthropology****ECTS credits:** 1**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lectures:**

Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bg

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg**Abstract:**

The aim of the course is to systematize and integrate the contemporary theoretical knowledge of man and in particular the child's development and education; to help the graduates to form a scientifically based humanistic ideology, to make sense and become more aware of their own life and pedagogical experience through the apprehension of the innovative and traditional pedagogical systems.

Course contents:

The main topics, included in the course are: Man as a subject of the pedagogical anthropology. Man as an alive bioenergetic creature. Spirituality and creativity of man. Integrity and contradiction of man. The child as a man. Culture as an anthropological phenomenon. History of the concept of culture. Culture as a phenomenon. Culture and man. Education as an anthropological process. Education as a human way of existence. Education as a special activity. What are the reasons for development of the personality? What are its moving powers? Why similar characters are formed in completely different backgrounds and circumstances? Why in an almost identical environment characters develop with an inner difference, even if they have an absolute identical heredity? In order to answer all the questions the course is designed to scrutinise all the genetic laws of the development, as well as the specificity of the social environment and the regularities and the interaction of the biological and social programmes, the dynamics of the abilities.

Teaching and Assessment:

Lectures are carried out mostly frontally, with illustrations and presentations, videos, discussions and personal researches on a topic from the pedagogical anthropology discipline. The final continuous assessment is in the form of a test.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written

1219 Educational Work With Children and Youth Communities**ECTS credits:** 1**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The basic objectives and tasks of the course are directed towards improving knowledge of students for methods and forms for educational work with children and youth communities. Specifying the several of possibilities to determining communities and the several of variants for educational work at and out of institutions. Describing characteristics of extracurricular educational work.

Course content:

Educational work with children and youth communities at and out of institutions; Prognostication and organization of educational work at school; Methods of education; Educational interaction; Educational interaction in-group – requirements; Educational work with pre school children; Educational work with youth – forms and methods; The clubs on interests; The roll game.

Teaching and assessment:

The course comprises of 15 lectures which cover 15 topics and which are presented to the whole group of students. Video materials are used to illustrate some of the topics and interactive methods are applied.

Weekly classes: 1lec+0sem+0labs+0ps**Type of exam:** written**1221 Social Pedagogical Diagnostics****ECTS credits:** 7**Assessment:** examination**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The main aim of the course is the students should be informed on the needed degree with the fundamental sciences in the diagnostics area, as well as to form at them elementary skills for professional using the diagnostic methods in their professional activity as the social pedagogues, educators and social workers.

Course content:

In the course of the Social pedagogical diagnostics discipline are first included topics about the origination and the historical development of the social pedagogical diagnostics and the basic directions \diagnostics\. On that wide ground are introduced theoretical and methodological fundamentals and the contents of the diagnostic process in the social area. The wide position is on the approach \methodology\ in the preparing, the conducting of social pedagogical research with the diagnostic character and on the forming and representing the results. There are presented the fundamental methods of the social pedagogical researches with diagnostic character \scientific research and the practice applied\ . In the course students are informed about the world social pedagogical researches with diagnostic character – TIMS, PIRLS, PISA .

Main topics: Origination and the historical development of the diagnostics; Theoretical and methodological bases of the Social pedagogical diagnostics; Preparing and conducting of social pedagogical research with diagnostic character; Forming and representing the results of the diagnostic social pedagogical research; Methods of the Social pedagogical diagnostics.

Teaching and Assessment:

The teaching of students allows for the development of basic knowledge and skills on the topics during the lectures. The topic of the lectures contains problem situations which create the basis for the seminars that involve work with the relevant literature. Active forms of learning are implemented in the seminars.

1222 Social Policy and Legislation**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The course aims to introduce students to basic domestic and international regulations in the field of social policy and law, to interpret and analyze their standards and their implementation in society. The following main international instruments in the field of social policies and instruments of national legislation relating to social risks insured, health insurance and social assistance

Course content:

The curriculum is consistent to maximum extent with the objectives of the course, namely that students are already familiar with contemporary problems of the theory of social policy and social legislation, expanding their social and legal culture and knowledge about important characteristics of social policy its relationship to the economy and global economic and social processes

Main topics: be considered challenges to social policy and ways to resolve them in the 21st century, youth unemployment is familiar with the payment system, the types of services and the management of social welfare, presents the ways to overcome the economic and budgetary challenges of aging

Teaching:

The teaching takes the form of lectures, which are analyzed and discussed. During the lectures are discussed issues related to the state, attitudes and current issues in social policy and legislation.

Weekly classes: 2lec+1sem+0labs+0ps**Type of exam:** written**1224 Special Pedagogy and Special Psychology****ECTS credits:** 5**Assessment:** exam**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lectures:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The goal of teaching the subject is broadening the scientific horizon of the future specialists in social pedagogy alongside improvement of the quality of their theoretical training. The themes included contribute to the formation of knowledge about: different kinds of psycho-physical anomalies; the characteristics of the cognitive activity; emotional-volitional sphere and personality in children with common developmental disorders and the problems of their education and development; principles which underlie organization of institutions for disabled persons.

Course contents:

The following themes are included: Evolution of the state policy and society's attitude towards persons with developmental anomalies; Basic categories of Special Pedagogy and Psychology; Psychology of preschool children with developmental anomalies; Characteristics of psychological development of children with intellectual disorders, with inhibition of development, with sensory disorders (visual and auditory); Logopedics; Somatopedics; Ethopedics; Psychology of children with complex disorders; etc.

Teaching and Assessment:

Lectures are carried out mostly frontally, with illustrations and descriptions of the different psychophysical disorders and behaviour deviations, using various interactive methods and skills. At practical training different test methodologies are proposed for examination of different cognitive processes with emphasis on the possible deviations and their pathological features. According to the syllabus a specialized school and kindergarten should be visited by students as well as centers which cater for children with different educational needs. The current mark is based on the results of three tests and the course assignment.

1225 Social-pedagogical work in school**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Pr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The lecture course acquainting the students with bases theoretical issues of the social-pedagogical work with special groups of children- with behavior problems, by specific educations needs (integrated education), with increased risk from a canceling in a school, children - victims of violence.

Course content:

The grave is installed on the parameters, the content and the models of the social-pedagogical consultation and advising. Some of the themes in the lecture course are reentrant to parameters of the Social-pedagogical work in relation with the school and professional orienting.

The practices aims to forming in the students some skills to know and use the applicability of different strategies and models of the social-pedagogical work in real situations, to organize theirs own professional activity in conformity with the modern needed education, skills to combine theoretical knowledge with the practice. Main topics: Contents, aim, specific, assignments and importance of the social-pedagogical work in a school. Principles and methods of the social-pedagogical work with children of school age.

Teaching and Assessment:

Training of students takes place in the form of lectures and practical exercises as the accent is on the contents and the specific of the social-pedagogical work with the different groups of children in the frames of the school institution. The main themes are illustrated by recent statistics from sociological researches to be analyzed and discussed. During the lectures discuss some problematic questions related to the role, functions and integrative parameters of the different agents of socialization (environment, family, school) and their connection with the effective social-pedagogical work.

1226 Workshop: Formation of Communication Skills**ECTS credits:** 2**Assessment:** continuous assessment**Departments involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

Practice for the formation of communication skills is designed to introduce students to basic models, strategies and techniques in teacher interaction to form in their ability to communicate with certain levels of socio-educational activities. Particular attention is paid to the practical options for development and implementation of interactive techniques to realize the main objectives and tasks of the social work educator.

Course content:

Nature and dimensions of social and pedagogical skills, techniques and skills to study and conservation. Diagnosis and self-assessment of communication skills of students, developing skills for transmitting and receiving information. Listening to customers and establish contact. Speech communication, skills for leading personal discussion. Research and ask questions to the customer. Dialogue, developing skills for nonverbal communication. Skills for interviewing clients; skills observations and analysis of projective techniques; Communicating in times of risk. Developing skills to communicate with persons with aggressive behavior; conducting socio-pedagogical training.

Teaching and assessment: Teaching is conducted in the form of seminars. Students are introduced to the theoretical and practical foudnation of the development of social and personal skills specific to the profession of the social pedagogue in accordance with the age of the clients. Interactive methods are used for the formation of attitudes and skills for productive educational interaction.

1227 Observation of Practices in Social Educational Institutions**ECTS credits:** 3**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The course aims to introduce students to the "Social Pedagogy" undergraduate programme and its application. It aims to inform students about the social services created in the structures of the social sphere. Based on the observations and comments of what students observe, they will be able to get a clear understanding of the practical applicability of their programme during the course of study.

Course content:

The course content tries to familiarize students with the state policy in the social sphere in the provision of social services for children and adults. The curriculum contains 45 seminars and it is consistent to a maximum extent with the objectives of the programme, i.e. to introduce students to real practical situations in the institutions working in the social sphere.

Students get to know the functioning and the organization of the specialized institutions and social services through offering opportunities for working with elderly people and school aged children and their families in institutions and at their homes.

Teaching:

The control of the gained knowledge and experience is done by the teacher after the observations. Students prepare a written statement in which they describe their impressions of the social institution / organization and give recommendations and ideas on expanding the spectrum of activities offered by it.

1228 Management and Marketing in the Education and Social Sector**ECTS credits:** 2**Assessment:** continuous assessment**Departments involved:**Department of Economics
Faculty of Business and Management**Lecturers:**Prof. Krasimir Ivanov Enimanev, MA, PhD, Department of Economics
tel.: 082 / 888 704, E-mail: kenimanev@uni-ruse.bgAssist. Prof. Svetoslava Krasimirova Enimaneva, MA, Department of Economics
tel.: 082 / 888 704, E-mail: senimaneva@uni-ruse.bg**Abstract:**

The course is focused on the adoption of knowledge which is based on the social theory, as well as on methods for economic analysis and general legislation that determines the rights and obligations of managers in education and social sector. The objective is students in Social Pedagogy to study the methods and to obtain obligatory practical skills involved in the work of social managers, to analyze particular problems in social sector management, models and directions for efficient functioning of the social systems and activities. The discipline inputs and outputs are synchronised with other disciplines involved in the syllabus of the speciality.

Contents of the discipline:

Social Management Fundamentals. Principles, Objectives, Functions and Subject of Marketing. Demographic Policy. Professional development. Marketing Environment. Employment and Income. Social insurance. Marketing Information and Marketing Research. Social Assistance and Partnership. Institutions of Social Management. Strategic Marketing Planning. Appraisal and Control of Marketing Activity.

Tuition Technology:

The tuition in that disciplines includes lectures oriented to practical adoption of social management and marketing in dynamic environment and efficient consumption of scarce resources. At the end of each lecture the skills adopted will be practiced in interactive session. Current marks will be given to the students essays and tests during the semester. The final term for delivering the essays is the last lecture date. Countersign on the discipline shall be given to students who have attended the course regularly in minimum of 20 lecture hours and who have delivered self-elaborated essay. The final mark on the discipline will be formed on the base of essay mark and test mark.

1229 Integration of Children with Special Education Needs**ECTS credits:** 2**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lectures:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The goal of teaching is broadening the scientific horizon of the future specialists in social pedagogy alongside improvement of the quality of their theoretical training. The themes included contribute to the formation of knowledge about: international principles and legislative framework of education of children with special needs, with organizations and structures through which realize.

Course contents:

The following themes are included: special education – international principles, referent to education of children with special needs; legislative framework of education of children with special educational needs; organization of special education – kindergarten and special schools; diagnostics of special educational need and orientation to special schools; competent organ to realizing education of special needs; structures without system of national enlightenment; comparative study of order special education in European countries and USA.

Teaching and Assessment:

Lectures are carried out mostly frontally, with illustrations and descriptions of the different psychophysical disorders and behaviour deviations, using various interactive methods and skills. The different test methodologies are proposed for examination of different cognitive processes with emphasis on the possible deviations and their pathological features. According to the syllabus a specialized school and kindergarten should be visited by students as well as centers which cater for children with different educational needs. The current mark is based on the results of three tests and the course assignment.

1230 Methodology of the Work of the School Counsellor**ECTS credits:** 2**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Denitsa Aleksandrova Alipieva, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bg**Abstract:**

The course is methodological, it establishes basic erudition and skills for psychodiagnostic, consultative and intermediate activities of the counselor in school. In the end of this course the students must have competency of the main activities of the counselor, of institutional and interinstitutional relationship and mediation, as well as to accomplish successfully methods for psychodiagnostic and consultation of scholars, parents and teachers.

Course content:

It is considered the main issues of the work of the counselor in the school (obligations, forms of work, mediation with scholars, parents, teachers, school administration and other institutions, ethical principles, furnishing of the office); there is brief introduction on history of school psychology; it is presented methodological principles for psychodiagnostic and the know-how and techniques for conduction of an interview with scholars and their parents; there is a course of consultation in the school and the main psychotherapeutical movements in modern psychology.

Teaching and assessment:

Except usage of an ex cathedra method of teaching, the technology of teaching includes exercises for accomplishment of projective techniques and interview with scholar, replenishment of questionnaires, video presentations. In the end of the course a training for consultative and social skills is conducted.

1231 Methods of Work of the Resource Teacher**ECTS credits:** 2**Assessment:** continuous assessment**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lectures:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The course is actual and contemporary by its content character. It corresponds to social requirements in special's education area, to radical changes in state politics in the area of education and social care to people with special needs. The goal of teaching the subject is broadening the scientific horizon of the future specialists in social pedagogy alongside improvement of the quality of their theoretical training. The themes included contribute to the formation of knowledge about: independent or team diagnosis of deviations in intellectual and social development; orientation and reception children in special schools; organization and conduct educational process.

Course contents:

The following themes are included: Legislative framework of education children with special needs and work of resource teachers. Competences of resource teacher: special science training; pedagogic and methodic preparation, specialize preparation and indispensable personal properties. The basic functions of resource teacher: planning, realizing education of children with special needs, evaluating and reading dynamic of development of cognitive processes and personality of children with special needs.

Teaching and Assessment:

Lectures are carried out mostly frontally, with illustrations and descriptions of the different psychophysical disorders and behaviour deviations, using various interactive methods and skills. The different test methodologies are proposed for examination of different cognitive processes with emphasis on the possible deviations and their pathological features. According to the syllabus a specialized school and kindergarten should be visited by students as well as centers which cater for children with different educational needs. The current mark is based on the results of three tests and the course assignment.

1232 Social Work with Disadvantaged Children**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main aim of the course is the students should be informed on the needed degree with the fundamental sciences in the Social work with disadvantage children area, as well as to form at them elementary skills for using the diagnostic and correctional methods in their future professional activity.

Course content:

The course discusses topics focused on the origin and the component structure, the aims, tasks and the functions of the process of socialisation. On that wide ground are introduced theoretical and methodological fundaments connected with working forms and conditions of the socialisation process efficiency in the social area. The wide position is on the approach \methodology\ in realization of the resocialisational impingements. Main topics: Characteristic of the disadvantage children types. Origination and the component structure; Aims, tasks and the functions of the socialisational process; Conditions and the basic principle of the socialisation process efficiency.

Teaching and Assessment:

The teaching of students allow to realize the basic preparing in the process of the exercises. The material creates the problematical background with the orientation that is full of content on the practical learning. In the process of the exercises are used the active forms of educating.

1233 Socialisation and Resocialisation of Children and Young Adolescents**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The main aim of the course is to develop the necessary knowledge and skills of students for their future work either as pedagogical councilors in institutions for children living without their parents or as educators in the institutions for children deprived from parental care. The students will develop the necessary skills for the socialization, resocialization and integration of those children.

Course content:

The course focuses on the explanation of the specific characteristics of the socialization of children of disadvantaged backgrounds living in social institutions, of Roma children and children from families with problems. It provides the main determiners for deviation among children and young adults and clarifies resocialization as pedagogical phenomenon, as well as the approaches and methods for resocialization of children and young adults.

Teaching and Assessment:

The course comprises 30 seminars covering 15 topics. The training of the students provides the means for the development of their basic knowledge and skills which are further improved in the seminars. Video materials, active learning methods (e.g. design of tests and filling in of tests, games, discussions) are used during the seminars. The combination of individual and group work methods allows for the illustration of the material included in the lectures and seminars.

1234 Andragogy**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

In the curriculum are elaborated scientific issues and contemporary aspects of education of adults. Students acquire skills for planning and organization of adult education. The main issues of andragogy are revealed. The challenges toward education in the global world are examined. The syllabus contains topics focused on the ontogenetic development of the person, as well as the periodization of ontogenetic development of adults and the specific characteristics of how they learn.

Course content:

Scientific status of andragogy – emergence and development, subject, object and tasks, collaboration with other sciences. Education of adults and contemporary social development. Contemporary conceptions for permanent education. Education – global problem. Permanent education in Bulgaria. System of andragogical methods and forms. Andragogical demands toward learning process of adults. Andragogical cycle. Design of teaching of adults. Distant education with adults. Communication in education of adults.

Teaching and assessment:

Interactive methods are used. They develop the skills for decision making, formulation of conclusions, development of communicative and organizational abilities (discussions, brain storming, role games, etc.). Tests are administered during the semester and the results obtained are taken into consideration when evaluating performance of students during the seminars.

1235 Social Work with Children and Young People at Risk**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The aim of the course is to introduce students to the specificity in Social Work with at-risk groups. The course includes topics designed to introduce students to classical and current methods, forms, concepts, strategies and programs for work with children and youth at risk. Seminars on the subject are aimed at forming at students of social pedagogy skills to know and assess the feasibility of different strategies and models for working with children and youth at risk in the realities of educational practice in the country; to organize their activities in accordance with the current requirements of education; to highlight general trends and specific cases; to relate the acquired knowledge to practice. These are basic competencies necessary for future social educators for their quality theoretical and practical training.

Course content:

Characteristic of the species groups of children and young people at risk; Determinants of emerging risk in children; Conditions for the emergence of social educational risk; Institutions working with children and youth at risk; Methodology of social educational work with children and youth at risk; Forms, principles and methods of socio-pedagogical work with risk groups; Basic parameters of social work with children and youth at risk - socialization and re-socialization; Aspects of professional psychological and pedagogical training of the educator working with children and youth at risk.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. They are designed to introduce students to new ideas and to provide a model for further analysis.

1238 Art Therapy**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Nikolina Angelova-Barbolova, M.D., PhD, Department of Health Care
tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bgLecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

Objective of the course of lectures is to prepare students in theory and practice of the Art Therapy. The main issues of Art Therapy are revealed.

Course content:

Characteristic features of art therapy. Some theoretical principles and schools in art therapy. Historic development of art therapy. Types of art therapeutic activities. Theatre therapy. The Psychodrama of Jacob L. Moreno. Poetry therapy. Music therapy. Movement therapy. Dance therapy. Storytelling therapy. The Game therapy of Clark Moustakas.

Teaching and assessment:

The course comprises of 15 topics which present the main features, content and different forms of art therapy. Each lecture is followed by a seminar.

1254 Career and Professional Development

ECTS credits:4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The aim of the course of lectures is to prepare students for their future professional careers as pedagogical counsellors in schools, career counsellors, human resource managers with a focus on vocational and career counselling, vocational and career development of staff.

Course content:

The program provides theoretical explanation of the essence of professional development and career development. It tries to enrich the opportunities of students for making a career in the field of social services and to outline the importance of competitiveness and the ability of individuals for self-development and self-improvement during their professional career.

Teaching and assessment:

The course comprises of 30 lectures 15 practical exercises. The course includes 14 lecture topics. Lectures are presented to the whole group. Video materials and active learning methods are used during the training of students such as: preparation and completion of tests, role-plays and discussions. The combination of individual and group work activities facilitates the acquisition of the material.

Weekly classes: 2lec+0sem+0labs+1ps**Type of exam:** written

1256 Human Resource Management

ECTS credits:2**Assessment:** continuous assessment**Department involved:**Department of Business and Management
Faculty of Business and Management**Lecturers:**

Assoc. Prof. Emil Nikolov Kotsev, MA, PhD, Department of Business and Management

tel: 082 / 888 715, E-mail: ekotsev@uni-ruse.bg

Pr. Assist. Prof. Bojana Yavorova Stoicheva, MA, PhD, Department of Business and Management

tel: 082 / 888 715, E-mail: bstoycheva@uni-ruse.bg**Abstract:**

The course aims to provide students with fundamental knowledge in Human Resource Management. They get aware of practical principles, methods, and levers for effective organization and motivation of Human Resources. Students use their background in Microeconomics, Fundamentals of Management, and Organizational Behavior while absorb the curriculum content. The acquired knowledge in HRM is applicable to learning process in Management of Small Business Enterprises, Business Games, Corporate Culture, Management Policy.

Course content:

The following basic areas are included: Nature and Traits of Human Resource Management, HRM System, Job Design, Human Resource Planning, Human Resources Movement, Staff Development and Training, Performance Appraisal, Compensation of Human Resources, Staff and Workplace Safety, Industrial Relations.

Teaching and assessment:

Training is conducted via delivering lectures in fundamental matters and conducting discussion sessions on specific issues in the curriculum. During the seminars, students acquire problem solving skills by developing organizational-regulative papers. Such kind of paper (a substantial one) is Course Assignment, which has to be developed on a particular topic, and leaves a room for students to voice themselves. The requirement for semester validation is regular attendance to classes. At the end of the semester a continuous assessment mark is formed as the average of the Course Assignment and students' performance marks.

1259 Training Practice in a Socio-Educational Institution**ECTS credits:**3**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The practice in socio-pedagogical establishment ensures active observation and participation in preventive, corrective, educational, diagnostic and organizational activities in different social institutions.

Course content:

The students have opportunity to pick out to practice in several socio-pedagogical establishments: Help center for disadvantaged children, Daily center for children living in the streets, Community Support Centre, Daily center for old people and Centre for social rehabilitation and integration. In this way they have an opportunity to acquire the variety of social services and their specific according to the served communities. Completed a diary, where students and leaders in practice in the SPZ note the progress in their individual case study in practice.

Teaching:

Teaching practice in social educational institutions is held in social services provided in the community and in institutions / Art.36 of the Regulations on the Application of the Social Assistance Act) / in Ruse. At the end of the semester students present their portfolios. The final grade is a sum of: 1) the number of visits; 2) the depth of the descriptions of the tasks made; 3) outer appearance; 4) commitment; 5) a statement prepared by the head of the practice in the institution where it was held.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written**1286 Role Training****ECTS credits:** 3**Assessment:**continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Nikolina Angelova-Barbolova, M.D., PhD, Department of Health Care
tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bgLecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

The aim of the role training is to expand the individual potential of the teacher to increase role flexibility, creative and communication skills, to enhance self-reflection, sensitivity and empathy, the ability for realistic perception of others and understanding the interdependence between the individual and the group. Behaviour role training aims at bringing about the development of certain limited aspects of human nature, so that professional and personal goals of the individual are achieved more adequately.

Course content:

The contents of behavioral role training include: a theoretical part familiarizing students with the role theory, role analysis, the theory of argumentation of the social and cultural atom of the individual, role system, role positions and behavioral role training. It presents theoretically main methods of work: sociometry, psycho-drama and socio-drama.

Teaching and assessment:

The main methods of instruction are discussion, sociometrics, socio and phsyco-drama. In the course of lectures students should acquire the notions of role, role positions and role analysis; the notions are later developed in an empirical way.

Weekly classes: 0lec+0sem+0labs+2ps+1ca**Type of exam:** written

1275 Group Therapy**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The goal of the program elective course "Group Therapy" is to: develop the most important skills for working with different types of groups; provide students with the opportunity to explore their own behaviour and influence on others; develop an active behavioural and personal competence in students.

Course content:

The course involves the application of a wide range of structured exercises in different types of groups - T-groups, Encounter groups, Gestalt Groups, Psychodrama Groups, Body-oriented Groups, Art Therapy Groups, Dance Therapy Groups, Music Therapy Groups, Skills Training Groups and group therapy sessions within Transactional Analysis, Cognitive Behavioral Therapy and Solution Focused Brief Therapy.

Teaching and assessment:

The teaching is interactive – through mini-lectures, discussions, role-playing and simulation games, work in small groups, performing oral and written tasks. Mini-lectures reveal key issues on the topics. Discussions are focused on debates and agreement in the presence of different positions. Other methods are focused on the acquisition of practical skills. Requirement - for 100% attendance at practical exercises.

Appraisalment - according to current student activity and course work.

1276 Family Therapy**ECTS credits:** 3**Assessment:** continuous assessment**Departments involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The course introduces in the technology of family therapy by analyzing real cases, compiling genograms, applying structured techniques. It helps to achieve a holistic view of human relations.

Course content:

Topics include: general information about the family system; methodological principles and common approaches in working with families; various structured techniques for working with family history, structure and rules; sociometric, behavioral, paradoxical and psychodrama techniques for working with families; assessment and investigation of family relationships with questionnaires.

Teaching and assessment:

The teaching is interactive - through mini-lectures, discussions, role-playing and simulation games, work in small groups, performing oral and written tasks. Mini-lectures reveal key issues on the topics. Discussions are focused on debates and agreement in the presence of different positions. Other methods are focused on the acquisition of practical skills. Requirement - for 100% attendance at practical exercises.

The evaluation of students is based on the continuous assessment results and their performance during the semester – the level of their course assignment and their active participation during the seminars.

1287 Social Problems of Unemployment**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The objectives of this course are to develop the basic knowledge of students on the present day problems of individuals who have temporary disability. The course content focuses on different perceptions and ideas about the reasons for the emergence of economic and social phenomenon – unemployment. The discussions help in the classroom cover topics related to the effects of unemployment on the psychological and emotional state of unemployed individuals and their families.

Course content:

The course contains 14 topics and is consistent to a maximum extent with the objectives of the curriculum, i.e. to familiarize students with the present day problems of individuals seeking employment. Main topics: basic theories of unemployment; reasons for the origin of unemployment, social consequences of unemployment and types of unemployment. Students are introduced to social protection against unemployment, Social Security and helping the unemployed. Security rights of the unemployed Measures to combat unemployment

Teaching and assessment:

Teaching is in the form of seminars where different topics are analyzed and discussed. Issues related to the characteristics of the social and economic phenomenon – unemployment and its impact on people of working age are discussed. The final grade is formed on the basis of the results of the administered test.

Weekly classes: 0lec+0sem+0labs+1ps**Type of exam:** written**1277 Social Work with Ethnic Groups****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

Multiculturalism and knowledge of specific mechanisms of intercultural interactions are among the most frequently discussed issues in contemporary pedagogy and social work. The goal of the course is the acquisition of knowledge and skills for working in an ethnically heterogeneous environment necessary for the work of future social educators.

Course content:

The course content is based on exploration of life and culture of minorities and majorities, psychological aspects and national identity of minorities in Bulgaria, normative acts, educational programs and tasks toward bigger issues – segregation, prejudices, early school leaving, criminalization and victimization, etc., as well as the methods for their overcome. The seminars are divided in three parts: theoretical part (main concepts), national life, culture and identity and issues and approaches for intercultural education, upbringing and social work. In the seminars the focus is onto concrete techniques and games for surmount of prejudices and development of tolerance to different persons.

Teaching and Assessment:

Seminal papers are included as means of short-term control of the work of students. Apart from these, the organization of the training allows for quantitative assessment of the competences of students.

1310 Coping with Disasters and First Aid**ECTS credits:** 1**Weekly classes:** 0lec+0sem+0labs+1ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Industrial Management
Faculty of Public Health and Healthcare**Lecturers:****Assos. Prof. Teodora Nedeva Sherbanova, MD, PhD, Department of Health Care**tel.: 082 / 888 410, E-mail: tsherbanova@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bg**Abstract:**

The course focuses on the specific problems concerning emergencies. All of them are life threatening situations. This makes an important need in terms of the clinical, therapeutic and organizational problems to be discussed with students. The aim of the course is to develop students' knowledge and skills for adequate and competent actions in cases of emergency.

Course content:

General Characteristics of Disasters. Classification. Organization of the Medical Insurance of People In Emergency Situations. Social and Psychological Problems in Emergency Situations. Accidents – Classification and Behaviour during Accidents. Acute Poisoning from Various Agents – Classes of Agents, Behaviour. Ionising Radiation – Biological Action, Acute Radiation Syndromes – Classification and Behaviour.

Teaching and assessment:

The teaching is done basically through lectures. Lectures present the theoretical basis of the subject matter and are accompanied by appropriate examples. They are held in a lecture hall where modern methods of presentations – multimedia, case studies and discussions are used. The use of educational films and special medical equipment is also possible. Particular attention is paid to the clarification of the enormous need for a quick and adequate response in emergency situations that threaten human life. The final grade is based on a written examination during and after the lectures.

1297 Geragogy**ECTS credits:** 4**Weekly classes:** 1lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The goal of the course is to reveal the main issues of aging, the factors and conditions that facilitate psychophysical health and longevity of old people, as well as their attitudes toward youth. The important problem for the status of aging generation in society is considered. The issues of the science geragogy are stretched.

Course content:

The course is based on the current problems related to aging and old age. The gerontological and demographic factors of the scientific discipline are presented. Due to the fact that the course has an integrative character, the course topics also include issues like health, hygiene and gerontopsychological problems.

Teaching and assessment:

The lectures are informative in character. Theories of gerontology, geriatrics and psychology of old age are used. Data from sociological studies on the lifespan and on the aging of the nation are discussed. Tests, cases, individual tasks, etc. are used during the seminars. The exam is written and included two topics from the course syllabus.

1298 Management of Social-Pedagogical Institutions**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zhivka Encheva Voenkinova, MA, PhD, Department of Social Education, Faculty of Education, University of Shumen

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bg**Annotation:**

The objectives of this course are to develop students' basic knowledge on contemporary problems in the theory of management of socio-pedagogical institutions. The course reflects different concepts that give rise to discussions and are necessary for the development of self-heuristic thinking of students.

The main national documents in the sphere of management of socio-pedagogical institutions – auxiliary and special schools, the Homes for children from 0 to 18 years of age, as well as the national legislation related to the management of different structures in the educational system.

Course content:

The curriculum contains 20 topics and is fully aligned with the course objectives, namely to familiarise students with modern management and social issues; expanding their social and legal culture and knowledge about important governance features.

Main topics: The emergence and development of management science; Management structures in the educational system of the Social Pedagogical Institutions (SPIs). Modeling, organizational designing, forecasting and planning in the education system of SPIs; Modeling, organizational design, planning and forecasting in the education system of SPIs. The forms of democratization and ergonomic aspects of the management of SPIs are also discussed.

Teaching and assessment:

The training of students is in the form of lectures that contain topics for analysis and discussion. Problem cases related to the state, attitudes and current problems in the management of the socio-pedagogical institutions are discussed.

Weekly classes: 2lec+2sem+0labs+1ps+0.5se**Type of exam:** written**1299 Social Work with Elderly and Disabled People****ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Prof. Zhivka Encheva Voenkinova, MA, PhD, Department of Social Education, Faculty of Education, University of Shumen

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bg**Abstract:**

The course aims to raise students' awareness of the different ideas and gerontological approaches that make a basis for discussions and are necessary for the development of independent heuristic thinking of students. The current problems of elderly and disabled people are considered.

Course content:

The syllabus contains 15 topics that focus on the theories of aging and gerontological approaches. The students are introduced to problems for eating, healthy lifestyle and the socio-psychological status of elderly and disabled people.

Teaching and assessment:

The training of students is in the form of lectures that contain topics for analysis and discussion. Problem cases related to the state, attitudes and current problems in the areas of social policy for elderly and disabled people are included.

Weekly classes: 1lec+0sem+0labs+2ps**Type of exam:** written

1307 Pedagogical Psychology**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alpieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752; E-mail: dalpieva@uni-ruse.bg**Abstract:**

The course aims at introducing students to the psychological mechanisms and regularities of the educational activities in the primary school and their progressive character.

Course content:

Students will study the new functions of psychological knowledge. They will acquire the latest methods for psycho-diagnosis during game and learning activities, the ways of motivating the teaching/learning process, the psychological conditions underlying the effective educational process. Special attention is paid to the process of forming children's personality through the basic educational activities in kindergartens and primary schools.

Teaching and assessment:

The course is taught by using a combination of lectures and seminar classes (tests, methods of psycho-diagnosis).

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written**1308 Summer Pedagogical Practice****ECTS credits:** 4**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturer:**Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: bilieva@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The summer pedagogical practice is conducted after the sixth term of the training of the future social pedagogues when the students have passed the courses "Observation of Practices in Social-Educational Institutions" and "Training Practice in a Social-Educational Institution" and have accumulated a large amount of theoretical and practical knowledge to participate actively in social and pedagogical activities.

Course content:

The students are allowed to choose different socio-educational institutions where their practice will take place (incl. institutions outside the region of the Municipality of Ruse (near to their home towns). They get acquainted with the rules, procedures, history and specifics of social work in the institution according to the normative acts and conditions imposed by the serviced contingent.

Teaching and assessment:

The summer pedagogical practice is carried out in social insitutions provided in the community and in specialized institutions (Art.36 of the Regulations on the Application of the Social Assistance Act) in Ruse. Students, future specialists in the social service professions, will have the opportunity to acquire practical skills. During the visits they will have the opportunity to meet and contact staff from specialized institutions for children and adults, representatives from the non-governmental sector as well as children and persons in need of support.

1309 Gameplay and Occupational Therapy**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

[Faculty of Natural Science and Education](#)**Lecturers:**

Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg

Pr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The aim of the course is to acquaint students with the theoretical foundations of psychotherapy and extend their knowledge in the field of applied and applied psychology.

Course content:

Occupational Therapy or the Occupational Therapy Model is presented as a single, task-oriented conceptual basis that involves in itself a learning process, a healing effect, and modeling the compensatory mechanisms of individual performance that replace broken/ lost functions. Particularly important in the social integration of disadvantaged children is the Game Therapy which is the closest and most natural activity in childhood.

Teaching and assessment:

Students are introduced to the theoretical foundations of the study material, supported by clinical cases and examples of social practice in accordance with their programme. Sample situations, training games are used to illustrate the lectures. The final grade is formed during the seminars and in relation to the qualities of the submitted seminal essay.

Weekly classes: 1lec+1sem+0labs+0,5se**Type of exam:** written**1288 Prevention of Crime, Drug Addiction and Violence****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Science and Education

Lecturers:

Prof. Todor Dimitrov Minev, MA. PhD, "St. Cyril and St. Methodius" University of Veliko Tarnovo

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The aim of the course is to highlight the scientific status of the discipline in terms of the theoretical knowledge and the practical skills to be acquired..

Course content:

Basic knowledge related to concepts such as prevention, types of prevention, characteristics of criminal behaviour, drug addiction and abuse are outlined, the boundaries of violence in its basic forms are outlined. The emphasis is on mastering conceptual constructs and building support skills of customers in a risky situation. Value orientation towards the profession of the social pedagogue is formed during the training, the creative skills of students are stimulated, students' theoretical and practical knowledge and competences are enriched.

Teaching and assessment:

The course comprises of lectures and seminars / presented to a group of students from different programmes / and individual work in the form of a seminal essay.

Weekly classes: 1lec+1sem+0labs+0ps+0,5se**Type of exam:** written

1311 Ways of Working with Children with Deviant Behaviour**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The goal of the elective course is to: develop students' knowledge on the current state of the problems associated with deviant behaviour; acquaint students with the implementation of adequate ways of working with children; form students' skills for evaluation, study, analysis and prediction of deviant behaviour; train students to implement the "Children Skills" method which is a pragmatically oriented method for discovering and developing human potential.

Course content:

The program includes a detailed examination of the: behaviour in the norm and deviation; structure, determinants, types and forms of deviant behaviour; nature and characteristics of the forms of prevention, intervention and behavioural correction of deviant behaviour; application of practical approaches in dealing with children with deviant behaviour.

Teaching and assessment:

The course comprises of lectures and seminars. Lectures reveal key issues on the topics. The seminars are focused on practical research skills in working with children with deviant behaviour.

Requirement – for 50% attendance at lectures and 100% attendance at seminar exercises.

Appraisal – according to current student activity and the seminal essay on a specific topic.

1312 Stress and Psychological Health**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Nikolina Angelova-Barbolova, M.D., PhD, Department of Health Care
tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bgPr. Assist. Prof. Silvia Alexandrova Krushkova, MA, PhD, Dept. of Physiotherapy,
E-mail: kroushkova@uni-ruse.bg**Abstract:**

The main objective of the course is to clarify scientifically the psychological and social causes of the occurrence and effect of the stress causing factors on the individual, as well as to form students' skills for mastering and applying the appropriate strategies for dealing with professional and life stress.

Course content:

In terms of contents the course includes the main factors triggering stressful behaviour of the individuals, different types of stress and their impact on the psychological status of the individual, strategies and methods for their successfully overcoming.

Teaching and assessment:

The main methods of instruction are discussion, illustration and problem-based learning. Special emphasis is placed on the scientific logic of the knowledge to be acquired.

0616 History of Religion**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course traces the issues related to the emergence of the first religious beliefs and ideas in antiquity (animism, totemism, paganism), the development of thorough religious and philosophic doctrines (Hinduism), and the rise of the world religions (Buddhism, Judaism, Christianity, Islam). The course seeks to reveal the common elements in the different religious beliefs, elements that underline the idea of universality of religious thought the preached moral values.

Course contents:

Emergence of the religious believes – animism, totemism, paganism, dualism, monotheism, Hinduism, Buddhism, Mazdaism, Judaism, Christianity, Islam. The great religious teachers of humankind and the moral values preached by them.

Teaching and Assessment:

The course comprises of lectures. They are designed according to a comparative principle as the course aims to reveal the common aspects in the philosophic structure of the different religious doctrines. The semester will be validated only if the classes have been attended regularly. The course is examined on a written test administered at the end of the term.

3931 Mythology and Religion**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course examines questions related to the most important Bible stories and their presence in the mythology of different nations. Thus we aim to trace back the religious thought of human society and the system of ideologies and conceptions about the micro and macro-cosmos, the ideas of divine or human creation.

Course content:

Introduction; The creation of the world and the people. The Bible story and myths. Gods – The creators. The cosmic mountain. The Babylon's Tower. The cosmic tree – the relationship between the human society and the divine sphere. The Great Flood – Historical evidence of the event. Treatment of the event in the different world mythologies. Knowledge as a symbol of wisdom. The Snake and the pagan idols. The tree of Life.

Teaching and assessment:

The course comprises of lectures. The semester will be considered validated only if the classes have been attended regularly. Assessment: continuous assessment.

0615 Principles of Christianity**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course is intended for students of Primary - school Education and a Foreign Language and Pre-elementary and Primary - school Education of the Faculty of education. It examines questions related to the emergence of Christianity and its evolution into a worldwide religion. Attention is paid to issues concerning the basis of the Christian church and Christian societies, the emergence of the early Christian heresy, the deepening of the contradictions between the Eastern - orthodox and Roman catholic church till the, so called, Great Schism in the year of 1054. The course deals also with issues related to the Protestantism and the differences and similarities between the different currents in Christianity nowadays. Problems concerning the newly appeared sects in this country are also discussed. Thus the course not only introduces students to the basic principles of Christianity but also contributes to the broadening of their outlook.

Course content:

Religious believes in the Roman Empire, Jesus from Nazareth and his mission. Emergence of Christianity and its adoption as a state religion. The 'Christian church' till the year of 1054 and afterwards .Christianity in Bulgaria. The religious sects in Bulgaria and ways of protection against their influence.

Teaching and assessment:

The course is taught by lectures. The semester will be considered validated only if the classes have been attended regularly. The course is examined on a written test administered at the end of the term and a subsequent interview with the lecturer.

Weekly classes: 2lec+0sem+0labs+0ps+0.5se**Type of exam:** written**4610 Social and Pedagogical Counselling and Advising****ECTS credits:** 7**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Neli Ilieva Boyadzhieva, MA, PhD, "St. Kliment Ohridski" University of Sofia

Pr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History

tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The course objective is to equip students with knowledge related to the theoretical basis and methodology of the different types and forms for social psychological consulting and advising. The accent is placed on the structure and process of consulting.

Course content:

The lectures elucidate different aspects of the social psychological counseling. Students get familiarized with the basis and methods of consulting and advising. Special attention is paid on the preparation, education and qualification of the counseling specialist.

Teaching and assessment:

The lecture material is delivered in the traditional academic style completed with adequate techniques of advising and consulting applicable in the pedagogical practice. Students sit for a written examination on topics from the course syllabus.

Weekly classes: 2lec+0sem+0labs+2ps+2cw**Type of exam:** written

1067 Permanent Education**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The main objective of the course is to provide a scientific explanation of the theory and practice of permanent learning as an opportunity to strengthen competitiveness, increase the adaptability of the workforce and achieve social stability.

Course content:

Emphasis is placed on the problems and perspectives of permanent education in Bulgaria and the world, the peculiarities of the socialisation of the personality of the adult; the main areas of permanent education, expanding the choices of how people can increase their skills and competencies in order to better their professional realization.

Teaching and assessment:

The main methods of teaching are: information presentation and its explanation, the illustration and problem-based teaching. Central place in these methods is attributed to the development of scientific knowledge of students. Students are given a test during the semester which includes questions on all main topics. The final grade is based on the grade on the test and on the grade on the course assignment.

4611 Occupational and Social Rehabilitation**ECTS credits:** 3**Assessment:** exam**Department Involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgAssoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main aim of the course is to make the students familiar with the main theoretical and practical knowledge in the field of occupational and social rehabilitation which have practical application. It is also focused on the presentation of the necessary set of occupational and social services related to rehabilitation, social and legal counselling, general education training and vocational education, job orientation, preparation and implementation of individual programmes for social inclusion.

Course content:

The course gives a detailed overview of the ways and ways of social inclusion and the psychological and social development of children and individuals from different age groups.

Teaching and assessment:

The main training of students is done during the lectures. The content of the lectures allows for the development of the necessary knowledge and skills of students for creating conditions for reduction of social isolation, occupational rehabilitation and an increase of the motivation for survival, of the self-esteem, confidence and independence in children and adults. Active teaching and learning methods are used during the seminars – e.g. visits to specialized institutions for socialization and rehabilitation of children, young adults and adults.

1343 Social and Psychological Training**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Nikolina Angelova-Barbolova, M.D., PhD, Department of Health Care

tel.: 082 / 888 410, E-mail: nangelova@uni-ruse.bg

Lecturer Milena Petrova Kenareva, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: mikena@kenarev.com**Abstract:**

Pedagogical training is complementary training which enhances students' social and communicative competences. One of its essential aims is to offer students (the future social pedagogues) models and options for enriching and diversifying the traditional interaction with children in the classroom by including innovative educational and didactic technologies. The course contains a variety of interactive methods. Therefore, it enriches its potential for optimization of interpersonal relationships among students, for teamwork, or for working on collaborative tasks that enhance the emotional sensitivity of students and strengthen their skills for applying conflict resolution techniques inside and outside the classroom.

Course content:

The content of the course topics introduces students to the training as a type of interaction considered on the basis of its organisation and nature. There is a clarification of the opportunities for training as a way of organizing and conducting human interaction in the framework of interpersonal communication.

Teaching and assessment:

Training takes the form of group work and differs considerably from the traditional lecture course. The logic of such a type of organization of the practical seminars is based on the characteristics and purpose of training as an activity. The course tuition is in line with the principle of discretion and involves cooperation on behalf of the participants. Interactive learning techniques and active learning methods prevail. The assessment is continuous. The final grade is formed on the basis of the continuous assessment results and on the quality of student participation in the practical seminars.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**4613 Practicum: Design of a Social and Educational Project****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The main aim of the course is to make the students familiar with the main theoretical and practical knowledge in the field of social and educational project design which have practical application. It is also focused on the development of students' skills for project design and project planning as special type of skills necessary for their future career development as social educators, educators and social workers.

Course content:

The course content includes a detailed elaboration of project design steps such as planning, development, monitoring and project implementation. The main topics include not only the design and organization of projects but also the examination of sample projects.

Teaching and assessment:

The training of students is accomplished in the course of lectures. The lecture content contains problem-based learning situations which are further elaborated at the practical seminars after the work with project samples. Active learning methods are used during the practical seminars.

0935 Acquiring Appropriate Manner of Speech and Behaviour**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Dimitrina Ignatova Tsoneva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 738, E-mail: dtzoneva@uni-ruse.bg

Pr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: kamarini@uni-ruse.bg**Abstract:**

The course is designed to help students improve their written and oral speech by acquiring the norms of Modern Bulgarian and the speech etiquette. They will learn to write business letters and documents. They will gain an insight on the structure and the syntactic features of scientific discourse, the main genre models, unification and the practical requirements for writing scientific reports, articles, scientific announcements, treatise, etc. The course deals with the etiquette norms of business and private communication, the correctness and appropriateness of speech, linguistic and stylistic features of different types of discourse.

Course content:

Speech culture and society. Conditions for speech activity. Types of communicative spheres. Problems of the Bulgarian speech etiquette. Enrichment of the speech culture: literary pronunciation and orthography; contemporary Bulgarian punctuation, use of morphological and syntax categories, practical stylistics, Writing business letters. Delivering public speeches.

Teaching and assessment:

The course of lectures provides students with theoretical knowledge on the main topics of the course curriculum. The topics of the lectures and seminars are the same and the more important language issues are illustrated with selected examples, tables, diagrams and some visual aids that facilitate the teaching process.

1071 Teaching Practice in a Social-Educational Institution**ECTS credits:** 4**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The teaching practice in a social-educational institution ensures active observation and participation in preventive, corrective, educational, diagnostic and organizational activities in different social institutions.

Course content:

The students are allowed to choose different socio-pedagogical institutions where their practice will take place – e.g. a Help Center for Disadvantaged Children, Daily Center for Children Living in the Street, Community Support Centre, Daily Center for Elderly People and Centre for Social Rehabilitation and Integration. Thus, the students have the opportunity to get acquainted with a variety of social services and their specific characteristics which depend on the target groups of people who find support in the above-mentioned institutions. The students fill in special portfolios where they record their progress made and where the mentors from the respective institution verify this. On the basis of the practical experience gained the students prepare an individual assignment which describes their work on a special case and which contains a report with an action plan.

Teaching and assessment:

The teaching practice is held in social institutions which are provided to serve the community and in specialized institutions /Art.36 of the Regulations on the Application of the Social Assistance Act / in Ruse. At the end of the semester students present their portfolios. The final grade is a sum of: 1) the number of visits; 2) the number of children or cases in which the student has been involved; 3) the ability to cooperate with the staff employed in the social-educational institution; 4) a report covering the case of a child; 5) a case which is described along with the risk assessment of this case (history and conclusions), a social report focusing on the needs of the individual and a plan for future interventions.

2639 Audio-Visual and Information Technologies in Education**ECTS credits:** 3**Weekly classes:** 1lec+0sem+0lab+1ps+0,5se**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Margarita Stefanova Teodosieva, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: mst@ami.uni-ruse.bg

Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: voinohovska@ami.uni-ruse.bg**Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications. *Spread sheets:* Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering. *Presentations:* New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

1409 Hygiene and Health Education**ECTS credits:** 3**Weekly classes:** 3lec+0sem+0labs+0ps**Assessment:** examination**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg

Pr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The aim of the course is to introduce students to the contemporary tendencies and advances in the study of the human health and health education in school.

The aim of the training is to provide students with the necessary knowledge about the health education of adolescents. Some of the lecture topics aim to familiarize students with the hygienic requirements in kindergarten and school, the didactic conditions for the development of dynamic stereotype regarding the hygiene of children and school students, as well as for the formation of prophylactic orientation related to the common infections and other diseases in childhood and their prophylaxis.

Course content:

Characteristic features, tasks and importance of hygienic science; Physical development of pupils and morpho-physiological characteristics of school aged children; Hygiene of pupils' work; Hygiene of nutrition of students; Hygiene of physical education and sports of students; Hygiene of the air environment, permanent components of the air and their health significance; Hygiene requirements of the classroom; Personal hygiene for students; Medical Service and Healthcare for Students.

Teaching and assessment:

The course is taught in the form of lectures. Lectures are designed to introduce students to new ideas and to provide a model for further analysis.

1428 Comparative Education**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgPr. Assist. Prof. Darinka Simeonova Nedelcheva, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dnedelcheva@uni-ruse.bg**Abstract:**

The aim of the course is to acquaint students with the history, content, methodology and structure of comparative education as a scientific field with certain practical significance. In order to respond to the current trends the course also includes topics related to the European dimension of education.

Course content:

History of comparative education in Bulgaria; Theory and methodology of comparative education; Structure and contents of comparative education; Educational systems in Bulgaria, the USA, Canada, France, Germany, Russia, Turkey, Poland, Austria, Japan, Australia, China; Comparison of the aims, finance, management, structural patterns of the educational systems and the teacher training programs in different countries; The European Union and the education in Europe.

Teaching and assessment:

The course is comprised of lectures designed to reveal the comparative patterns in the structures of the different educational systems. One of the learning outcomes of the course is the development of students' skills to implement theory into practice. Therefore, students are given individual course assignments focused on creating a comparative research study of the general educational systems of at least two countries. The assignments are assessed and a written test is administered at the end of the semester. The final grade is an average of the grade on the written test and the result on the assignment.

1072 Pre-Diploma Practice**ECTS credits:** 10**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: prpetrov@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: bilieva@uni-ruse.bg**Abstract:**

The course is aimed at introducing students to real practical situations in social structures.

Based on observations and comments seen, students will be able to assess the practical applicability of study.

Course content:

The curriculum contains 95 exercises and the maximum extent consistent with the objectives of the course, that is already familiar to students real practical situations in social structures.

There is practice of students takes place in specialized institutions and social services in the community where they will apply their knowledge by working with clients in the elderly and for children and their families in institutions and at home.

Special emphasis is placed on completing the log where each day were recorded daily tasks of social Head of school / institution.

Students describe all implemented activities in problem solving and case studies that are prerequisites to upgrade the knowledge and skills acquired in the above disciplines to date.

The diary ends with the opinion of the head in practice.

Teaching and assessment:

Is assessed by the teacher through inspection of the completed log carry and reporting practices, and advice to the Head of practice. After the practice student submitted completed diary where every day were recorded daily tasks of social Head of school / institution and implemented activities. The final continuous assessment is set by the Commission, after visiting student social institution. Commission members are the head of the department and its faculty. Member may be represented by a specialized institution or social service.

Self Preparation for Graduation**ECTS credits:** 4**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

All academic staff members who are supervisors of Bachelor Theses are involved in this as well as those tutors whose courses are present by means of questions included in the State Exam syllabus.

Abstract:

Students choose a Bachelor Thesis topic and a supervisor. Stages of development of the Bachelor Thesis. Finding relevant resources and materials. Layout and formatting of the thesis. Presentation in front of a State Board of Examiners.

Course content:

The Bachelor Thesis supervisors help the students during each of the stages of its development. They also help students prepare for its defence in front of the State Board of Examiners.

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:****State Written Exam in Social Pedagogy****ECTS credits:** 10**Assessment:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgAssoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bgPr. Assist. Prof. Bagriana Rashkova Ilieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219; E-mail: ilieva@uni-ruse.bgPr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vasileva@uni-ruse.bgAssoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The State Exam is the graduating procedure for the students from the Social Pedagogy undergraduate programme. It gives students an opportunity to present their knowledge in the courses from the social pedagogy field included during the course of study. The students give answers to two questions from the State Exam Syllabus. The aim of the State Exam is to provide an opportunity for students to present the knowledge acquired during the training and to express their own opinion on the respective topics.

Course content:

The State Exam contains a syllabus comprising of 40 questions from the field of Social Pedagogy which summarise the courses from the undergraduate programme.

Teaching and assessment:

Students sit a State Written Exam at the appointed State Board of Examiners.

Bachelor Thesis Defence**ECTS credits:** 10**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from Department of Pedagogy, Psychology and History

Abstract:

The Bachelor Thesis is developed individually by the students upon the supervision of a tutor (scientific supervisor). The aim is to give an opportunity to students to demonstrate their knowledge and skills while preparing the Bachelor Thesis and present it successfully at a State Board of Examiners.

Course contents:

Thesis includes a topic or area studied on the Bachelor's degree compulsory courses.

Teaching and Assessment:

The Department of Pedagogy, Psychology and History provides:

- organization in collecting, validating and disclosure of proposals for topics for thesis for the award of a bachelor's degree;
- allocation of topics to the students and the choice of their tutors;
- management, preparation of reviews and presentation of the thesis;

Each week the supervisors give consultation to the students. Then they monitor the performance of the administered tasks. Students present their bachelor thesis at a State Board of Examiners.

CURRICULUM

**UNDERGRADUATE
STUDIES
IN
BULGARIAN LANGUAGE
AND HISTORY**

**PROFESSIONAL STANDARDS
OF A BACHELOR IN BULGARIAN LANGUAGE AND HISTORY**

Degree Programme: **Bulgarian Language and History**

Educational Degree: **Bachelor**

Professional Qualification: **Teacher in Bulgarian Language and Literature and Teacher in History**

Term of education: **4 years (8 terms)**

The main goal of the **Bulgarian Language and History** undergraduate degree programme is to provide students with a wide array of specific scientific and methodological preparation for their future professional career as teachers of Bulgarian language, literature and history. The preparation places an emphasis on the acquisition of:

- Fundamental historic and linguistic knowledge;
- Knowledge of the pedagogical and psychological disciplines;
- Basic and alternative theories of the teaching of history and Bulgarian language and literature;
- General knowledge and skills on archive studies and museum work;
- Specific skills for editing of texts;
- The specifics and requirements of the European dimension of education.

The quality of training of students doing the Bulgarian Language and History Bachelor degree is assured through:

- The use of modern studies and computer facilities;
- The availability of highly qualified academic staff;
- The subjects included in the curriculum which fall into the following categories:

Main courses: Bulgarian Language, Bulgarian Literature, History, Pedagogy, Methodology of teaching Bulgarian language, Methodology of teaching literature, Methodology of teaching History etc.;

General specialist courses: Philosophy, Psychology, Foreign Language, Classical Language, Political Studies, and others;

Programme specialised courses: Old Bulgarian Language, Old Bulgarian Literature, Medieval Bulgarian History, Modern Bulgarian Language, Stylistics and text linguistics, New and Modern History of Bulgaria, etc.

The student who has graduated the Bulgarian Language and History undergraduate programme has to possess the following **knowledge and skills:**

- to organize and participate in educational, instructional, scientific and methodological work in Bulgarian language, literature and history in educational institutions;
- to participate in diagnostic and prognostic activities focused on measuring the academic achievement of students in Bulgarian language, literature and history;
- to organise and deliver consultancy and cultural and educational work in public organizations;
- to analyse, classify and systematize archive and museum materials; to edit literary, publicist, scientific and fictional works;
- to manage and organize the activity of educational and public institutions;
- to feel empathy towards the humanistic activities of others and to be able to participate in every-day situations in the same way;

CURRICULUM

OF THE DEGREE COURSE IN BULGARIAN LANGUAGE AND HISTORY

(THE CURRICULUM WILL BE IN USE UNTIL THE ACADEMIC 2019/202 YEAR;
IN THE CURRENT ACADEMIC YEAR (2017/2018) THE SECOND, THIRD AND FOURTH YEAR STUDENTS
ARE TRAINED FOLLOWING THIS CURRICULUM)

First year

Code	First term	ECTS	Code	Second term	ECTS
0787	Introduction to Literary Theory	5	0797	Introduction to General Linguistics	5
0789	Introduction to the Historical Knowledge	1	0798	Old Bulgarian Literature	3
0790	Archeology	3	0788	Classical and Western European Literature	3
0792	Ancient History	6	0800	Phonetics and Lexicology	6
0793	Medieval Bulgarian History	3	0801	Old Bulgarian Language	3
0794	General Medieval History	2	0802	Medieval Bulgarian History	5
0795	Bulgarian Folklore	3	0803	General Medieval History	3
1031	Thracology	1			
1503	Audio-Visual and Information Technologies in Education – Part 1	3			
Elective courses (students elect a course)			Elective courses (students elect a course)		
0804	English	3	0804	English	2
0805	German	3	0805	German	2
0806	French	3	0806	French	2
1488	Classical Language	3	0807	Russian	2
0807	Russian	3			
Total for the term:		30	Total for the term:		30

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
2594	Classical and Western European Literature	3	2601	Pedagogical Psychology	5
2595	Morphology	4	2602	Children and Teenage Literature	3
2596	Bulgarian Revival Literature	5	2603	Modern Bulgarian Literature	2
2597	Archive and Museum Studies	4	2604	Syntax	5
2598	History of the Byzantine Empire	5	2605	Stylistics and Text Linguistics	5
2599	History of the Balkan People	3	2606	History of the Balkan People	3
2600	Bulgarian History 15 th – 19 th Century	3	2607	Bulgarian History 15 th – 19 th Century	5
Elective courses (students elect a course)			Elective courses (students elect a course)		
0804	English	3	2608	Ethnology	2
0805	German	3	2609	The Cultural and Historical Heritage of Bulgaria	2
0806	French	3	2610	Regional Studies	2
0807	Russian	3			
Total for the term:		30	Total for the term:		30

Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
2611	Pedagogy	5	2621	Modern Bulgarian Literature	2
2612	Appropriate Manner of Speech	5	2622	Modern History of Bulgaria 1	7
2613	Modern Bulgarian Literature	5	2623	History of Religions	3

2614	Russian Literature	5	2625	Methods of Teaching Bulgarian Language	5
2615	Modern History of Bulgaria– Part 1	6	2626	Lesson Observation in Bulgarian Language	1
2616	Psycholinguistics	2	2627	Methods of Teaching Literature	5
Elective courses (students elect a course)			2630	Lesson Observation in Literature	1
2617	Dialectology	2	2631	Methods of Teaching History	4
2618	Phraseology and Lingo-Cultural Studies	2	2633	Lesson Observation in History	2
2619	Theory and Practice of Literary Criticism	2			
2620	Literary History	2			
Total for the term:		30	Total for the term:		30

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
2634	Modern Bulgarian Literature	3	2643	History of the Modern Bulgarian Literary Language	2
2635	Historical Grammar	3	2644	Pre-Diploma Teaching Practice in Bulgarian Language	2
2636	Modern General History - Part 2	6	2645	Pre-Diploma Teaching Practice in Literature	3
2637	Modern History of Bulgaria - Part 2	6	2646	Pre-Diploma Teaching Practice in History	3
2638	Historiography	3	2647	Self-Preparation for the State Exam / Bachelor Thesis	4
2639	Audio-Visual and Information Technologies in Education – Part 2	3	Elective courses (students elect a course)		
2640	Teaching Practice in Bulgarian Language	2	2648	Pedagogical Diagnostics	2
2641	Teaching Practice in Literature	2	2649	School Hygiene and Health Education	2
2642	Teaching Practice in History	2	2650	Problems of Deviant Behaviour	2
			2651	Psychology of Communication	2
			Elective courses (students elect a course)		
			2652	Pedagogical Rhetoric	2
			2653	Educational Sociology	2
			2654	Religion and Education	2
			2655	School legislation, administration and economics of education	2
			Elective courses (students elect a course)		
			2656	Political Science	2
			2658	Bulgarian Constitutions	2
			2659	Philosophy	2
			Graduation		
			2660	Practical Exam in Bulgarian Language, Literature and History	2
			Elective Courses – Group 1 (Students elect one of the courses)		
			2661	State Exam in Bulgarian Language or Literature	4
			2662	Bachelor Thesis in Bulgarian Language or Literature	4

		<i>Elective Courses – Group 2 (Students elect one of the courses)</i>		
		2663	State Exam in History	4
		2664	Bachelor Thesis in History	4
	<i>Total for the term:</i>	30	<i>Total for the term:</i>	30

Total for the course of study: 240 ECTS credits

0787 Introduction to Literary Theory**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082/888 612, E-mail: rrusev@uni-ruse.bg

Pr. Assist. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,

tel.: 082/ 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The course acquaints students with the methodological problems of literary theory. It presents the theoretical bases of the different literary schools and approaches and motivates students to develop an active and positive attitude towards literature as a narrative art and specific social system.

Course content:

Literature as narrative art. Character, subject of study, branches and tasks of literary theory. Methodological problems of modern literary theory. Features of literary communication. Literary text and literary discourse. Language and style of fiction. Classification of style patterns. Poetical phonetics. Poetic imagery. Rhetoric – Poetry – Stylistics. Poetical syntax. Myth – folklore – literature. Literary forms and styles. Features of the lyrical work. Features of fiction. Features of drama. Strategies for analysis and approaches to interpretation.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students write a course work on a topic which is distributed in advance. In the course work they demonstrate their theoretical knowledge and analytical skills as well as skills for the interpretation of literary texts.

The course includes three control tests on the material taught. At the end there is a written exam.

0789 Introduction to the Historical Knowledge**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course aims at helping students acquire practical skills for working with written sources of information like historical sources and scientific literature as well as to encouraging active participation in the historical classes included in the curriculum. The students should learn how to read and interpret original sources, how to write messages, reports.

The material is divided into several thematic groups: features of the object, subject and the result of historical study, the role of historical facts, and methods of historical study- historical way of thinking and historical explanation, auxiliary historical courses and specifics of the process of historical study, scientific pedagogical rules.

Course content:

Object, subject and result from the historical knowledge. Historical sources and historical knowledge. The problem with the facts and historical knowledge. Basic methods of scientific study: description, explanation.. Scientific pedagogical rules. Genres and specifics of the historical knowledge- objectivity and subjectivity. Basic sources of historical knowledge. Periodization and chronology.

Teaching and assessment:

The course is taught in the form of lectures and seminars. Attendance of classes is obligatory. The semester is validated if the classes have been attended regularly and if the students have participated in the educational process. Two tests are administered during the semester.

0790 Archaeology**ECTS credits:** 3**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Volodya Andreev Popov, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752

Abstract:

The subject aims at acquainting students with the material culture of people from the antiquity to the late medieval period. Special attention is paid to the so called unwritten period of the history of humankind for which archaeology is the only source of. The course covers topics on archaeological data from Front Asia, Egypt, Greece, ancient Thrace and Rome and on Christian and Byzantine archaeology. Issues related to Bulgarian medieval archaeology are also examined.

Course content:

Introduction to archaeology. Paleolith, Mesolithic, neolith, eneolith-archaeological characteristic. . The culture in Asia Minor, Schumer, Arcade, Babylon, Judea, Persia. Ancient Egypt-architecture, art, monuments. Aegean culture. Ancient Thracian tribes. Culture of Ancient Greece. Etruscan archaeological monuments. Roman and Byzantine culture. Slavs and proto-Bulgarians- archaeological traces. The Bulgarian state – architecture, fortifying facilities, system of settlements. Church architecture. Medieval Bulgarian culture – ceramics, metapolistics, church architecture. Old Bulgarian art - sculpture, iconography, miniature painting.

Teaching and assessment:

The course is delivered in the form of lectures. The course ends with a written exam.

0792 Ancient History**ECTS credits:** 6**Weekly classes:** 3lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg

Abstract:

The objective of the course is to introduce the students to the essential issues about the formation of the first human civilizations, the evolutions of the societies of the Ancient East, Ancient Greece, Ancient Rome, Ancient Thrace. The mechanisms of power typical for the different ancient states are presented. The course examines and summarizes the immense variety of forms of government, religious and philosophic doctrines and cultural achievements of ancient societies. Students are familiarized with a great number of historical hypotheses and theories. The educational content is in accordance with the subjects taught in the secondary school.

Course content:

Introduction 1. Ancient East: Ancient Egypt- old, middle, new kingdom- progress and culture. Mesopotamia: Sumer- Acadia and the old Babylon kingdom- the laws of Hammurabi. Assyria. Syria. Phoenicia. Judea, Persia. 2. Ancient Greece: Crete-Mycenian civilization. Ancient Greece- development during the periods. Athens and Sparta. Greek- Persian wars. Peloponnesian war. Macedonian hegemony in Greece. Alexander the Great and his way to Persia. The Hellenic countries and Hellenic culture. 3. Ancient Rome: periods, sources, historiography. Establishment and rise of the Ancient Rome- royal and republic period- internal and external politics. Punic wars. Principate and dominate.

Technology of assessment:

The course is taught by lectures and seminars where there is hourly oral and written checking. The course of lectures is taught by a lecturer having academic rank and seminar exercises are taught by an assistant. The attendance of all lections and seminary exercises are obligatory as well if the students have participated in the educational process. During the semester students work individually a coursework. The course is finished with a written exam, as the final point is based on the assessments made by the continuous assessment and the coursework.

0793 Medieval Bulgarian History**ECTS credits:** 3**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course is designed to acquaint students with: the basic problems of periodization and historiography of the Bulgarian Medieval period: essential problems of the institutional, economic, political and cultural development of the Bulgarian Medieval State. Students completing this course will be able to interpret in an independent way the historical events covered by this course.

Course content:

Periods, sources and historiography of the medieval Bulgarian state. Slavs. Proto-Bulgarians. Establishment of the Bulgarian state on the Balkans. Chan Tervel-the constructor. Political crisis in Bulgaria during 8th century. Bulgaria during the first half of the 9th century. Conversion to Christianity. The deed of St. St. Cyril and Methodius. Spiritual and political progress of Bulgaria during the kingdom of King Simeon. Formation of the Bulgarian nationality.

Teaching and assessment:

The course is taught by lectures and seminars. The attendance of all lectures and seminary exercises are obligatory. The semester will be validated at the end of the term only if the classes have been attended regularly and if the students have participated in the educational process. During the classes there is oral and written continuous checking.

0794 General Medieval History**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education**Lecturers:**

Volodya Andreev Popov, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752

Abstract:

The course examines the formation and development of contemporary societies, their national psychology, norms of behaviour, religious principles and cultural development during the period 5th – 12th century, also known as the medieval period. It looks at the role of the Christianity on forming the outlook of medieval people, the religious conflicts between the East and the West, the birth of the middle class societies, the Renaissance as an underlying factor for a new way of thinking and contemporary achievements of the European society.

Course content:

Crisis in the slave system and the birth of elements of feudal relations in the late Roman Empire. The Great migration of peoples and first barbarian states on the territory of the Western Roman Empire. The Franc state during the Merovingians and Carolings. Establishing of feudal relations. Western and Central Europe in the period 9th – 11th century- France, Italy, Germany, England. The Slav peoples during the early medieval times- southern, western and eastern Slavs. Byzantium in the period 6th – 11th century. The Arabs and the Arabic invasions. Medieval cities. The crusades. France and England in the period 11th – 15th century. The hundred - year war. Germany and Italy in the period 11th – 15th century. Czech- Husistian revolution wars. Poland in the period of the essential medieval times. Portugal and Spain during 11th – 15th century. Catholic Church and Western Europe in the period 11th – 15th century. Heretical teachings and movements in Western Europe. Medieval culture and ideology in Western Europe. Humanism and early Italian Renaissance. The Great geographic discoveries. The reformation and the Village war in Germany. The Reformation in Western Europe. The Reformation in Germany. Religious wars. The Dutch middle-class revolution. England and France in the age of the absolutism. Russia during the 17th century. The thirty – year - war in Europe.

Technology of assessment:

The course is taught by lectures and seminars. The attendance of all lectures and seminary exercises is obligatory – the semester will be validated if students have attended classes regularly.

0795 Bulgarian Folklore**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps+0.5se**Assessment:** exam**Type of exam:** oral**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Nikolay Ivanov Nenov, MA, PhD, Regional Museum of History – Ruse

tel.: 082 / 825 002, E-mail: nenoff@abv.bg

Pr. Assist. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg

Abstract:

The course is the necessary basis for Bulgarian humanitarian science. The knowledge this course gives to students is related to the problems, aims and tasks of folklore science and to the representatives of the field in Bulgaria and abroad. It also gives information about the relationship of folklore to other courses as literary studies, ethnology, social and cultural anthropology, dialectology, sociology etc.

Course content:

Emergence and development of folklore studies. Bulgarian folklore studies during the Renaissance. Bulgarian folklore after the Liberation. Contemporary problems of Bulgarian folklore studies. Bulgarian calendar and family celebrations. Ritual songs. Myth and folk-lore. Plastic folklore representations. Ritual songs. Myth and folklore. Bulgarian heroic epic. Bulgarian "haiduk" epic. Historical songs during the Renaissance. Mystifications and folklore. Folk ballads. Social, labour, love and humour songs. Folklore stories. Short folklore genres. Contemporary forms of folklore culture.

Technology of assessment:

The course is delivered in the form of lectures and seminars. Students sit for an oral exam at the end of the semester and defend an executive summary at the end of the semester.

In order to facilitate the acquisition of the material when students work individually outside the classroom, the course offers an opportunity for students to do controlled field work.

1031 Thracology**ECTS credits:** 1**Weekly classes:** 1lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education

Lecturers:

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg

Abstract:

The objective of the course is to introduce students to the essential issues related to the formation of the first human civilizations and the development of society in Ancient Thrace. The mechanisms of power typical for the different ancient states are presented. The educational content complies with the subjects taught in the secondary school.

Course content:

Thraceology: sources and periodization. Ethnic origin of the Thracians. Development of the Thracian society during the Bronze and Iron Age – village life, material culture and way of life. The Adrianople Kingdom. Thracian Orphism. Thracian art.

Teaching and assessment:

The course is taught in the form of lectures. The course of lectures is read by a qualified educationalist with a academic degree and the seminars – by an Assistant Professor. Regular participation to classes and active participation of students in is expected. During the semester students have to write individually a scholarly essay. At the end of the course students sit a written exam.

1503 Audio-Visual and Information Technologies in Education – Part 1

ECTS credits: 3**Weekly classes:** 0lec+0sem+0lab+2ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754; E-mail: datanasova@ami.uni-ruse.bg**Abstract:**

The course objective is students to get thorough knowledge and skills for operating with WORD, EXCEL and PowerPoint programs. The pre-requisite for attending the course is the possession of elementary computer literacy as a basis for gaining further knowledge and skills for using computer techniques. Students get familiar with Microsoft Office applications and learn how to combine the data created with them.

Course content:

Text processing: Create new document and format. Styles and Templates. Macros. Publishing of Word document in the Web. Searching and operation with styles and templates. Create templates and template applications.

Spread sheets: Create tables. Absolute links. Functions. Hyperlinks. Databases, sorting and filtering.

Presentations: New presentation. Animation. Multimedia presentation. Operating with macros. Publishing of slides in the Web.

Teaching and assessment:

The course is conducted through practice sessions twice a week. The focus is laid on students' individual practical work and the development of complete projects. Students have to work out 3 tasks independently. The course ends with a continuous assessment mark. It is calculated as 10% of student's performance during the course and 30 % for each task result.

0804 English

ECTS credits: 3**Weekly classes:** 0lec+0sem+0labs+2ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**Sr. Assist. Prof. Ivelina Dimitrova Petrova, MA, Department of Foreign Languages
tel.: 082/888 803, E-mail: ipetrova@uni-ruse.bgSr. Assist. Prof. Elitsa Dimitrova Georgieva, MA, Department of Foreign Languages
tel.: 082/888 815, E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they already have from school and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to art and religion, summarizing texts, writing reports and articles.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Tasks involving comparing different historical websites are envisaged; they also aim at developing students' skills to plan and design teaching materials. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

0805 German**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082/888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they already have from school and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to art and religion, summarising texts, writing reports and articles.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Tasks involving comparing different historical websites are envisaged; they also aim at developing students' skills to plan and design teaching materials. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**0806 French****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082/888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they already have from school and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to art and religion, summarising texts, writing reports and articles.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Tasks involving comparing different historical websites are envisaged; they also aim at developing students' skills to plan and design teaching materials. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

1488 Classical Language**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assist. Prof. Maya Stefanova Stoyanova, MA, Department of Public Law

Cell phone: 0886 821 283, E-mail: mastoyanova@uni-ruse.bgPr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: kamarini@uni-ruse.bg**Abstract:**

Latin is one of the two classical languages which serve as a basis for European culture and civilization. Knowledge of Latin is a necessary prerequisite for the successful acquisition of general linguistics and for the better understanding of linguistic facts in every branch of linguistics. The course provides the basis for the study of terms and the methodological basis for the learning of linguistic and historic courses. The main aim of the course is to introduce students to the grammatical and vocabulary system of Latin and to develop students' skills for reading and translation of texts with a high degree of difficulty.

Course content:

The course includes: Phonetics and Pronunciation rules; Morphology – case system, declension of nouns and adjectives; cases and gerundive forms. Syntactical rules and peculiarities; terminology – preferred forms and constructions

Teaching and assessment:

The general methodology has been appropriated for the students in Bulgarian language and History. The final grade is based upon the result from a written testing as well as their participation during classes.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**0807 Russian****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**

Sr. Lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they already have from school and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to art and religion, summarising texts, writing reports and articles.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Tasks involving comparing different historical websites are envisaged; they also aim at developing students' skills to plan and design teaching materials. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

0797 Introduction to General Linguistics**ECTS credits:** 5**Weekly classes:** 2lec+1labs+0ps+1cw**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Prof. Dimitrina Ignatova Tsoneva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 738, E-mail: dtzoneva@uni-ruse.bg

Abstract:

The course aims at introducing students to the foundations of Linguistics and the object of study of each of the main linguistic branches. Students are acquainted with issues about the functions of language and the principles guiding language development and changes.

Linguistics examines questions concerning the relation between language and society, language and thought, language and speech, linguistic organisation, as well as the classification of languages, the origin and development of the different writing systems. The course in Linguistics lays the foundations of all other linguistics-related subjects included in the curriculum of the Bachelor's degree. It is designed to give students fundamental knowledge about the language phenomena, to clarify and facilitate the process of learning foreign languages and to present them to the ideas of languages as a system and/or a structure.

Course content:

History of Linguistics; Character and functions of languages; Language and society; Language and thought and their correlation; Aspects and levels in the research of language and speech; Processes and laws guiding language changes and development; Classification of languages: genealogical, morphological, studial, etc; Languages of the Balkan Peninsula; International natural and artificial languages; Intralinguistics: Phonetics, Lexicology, Morphology, Syntax, Text linguistics, Stylistics; Extralinguistics: Sociolinguistics, Psycholinguistics, etc.

0798 Old Bulgarian Literature**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** oral**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Prof. Nevyana Docheva Panayotova, MA, PhD, D. Litt., "St. Cyril and St. Methodius" University of Veliko Turnovo

Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: rrusev@uni-ruse.bg

Abstract:

The aim of the course is to enhance and systematize the knowledge of students on old Bulgarian literature as an essential part of the literary theory of Bulgaria. It focuses on the study of some of the most outstanding figures in Bulgarian literature in the period 9th to 18th century and of their works which are representative in the character of one of the oldest written works of literature in Europe.

Course content:

Character and specifics of Old Bulgarian literature. Periods of development. The role of the deed of St. Cyril and St. Methodius for the spiritual development of the Slavs. Kliment Ohridski. Konstantin Preslavski. Joan Exarch. Bogomil and anti Bogomil literature. Presviter Kozma Old Bulgarian literature during the Second Bulgarian Kingdom. Patriarch Euthimius. Grigoriy Tsamblak. Old Bulgarian Literature in the period 15th – 18th century.

Teaching and assessment:

The course is delivered in the form of 15 lectures and 15 seminars.

0788 Classical and Western European Literature**ECTS credits:** 3**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Sr. Lecturer Iliana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, Department of Bulgarian Language, Literature and Art

тел.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course plays an essential role in the development of the literary knowledge and skills of the students from the degree programme *Bulgarian Language and History*. It aims at introducing students to the literary aesthetics and conventions of the literary schools in Ancient Greece and Rome and in the Western European countries: Italy, France, England, Spain and Germany.

Course content:

The lectures on Classical literature deal with the pre-Hellenistic and Hellenistic periods of ancient Greek literature and the early and classic periods of the Roman literature, while the lectures on Western European literature follow the main periods, tendencies and schools in the literature of Western Europe to the end of the 20th century.

Teaching and assessment:

The syllabus stresses upon the cognitive elements that contribute to comprehending the inception of the artistic phenomena as part of the development of the classical and West European literary process.

The course is taught through lectures and seminars. The seminars concentrate upon the interpretation of literary works by using different approaches: semiotic, structural, religious and mythical, etc.

Students are given an essay to write and defend on a topic given in advance. They have to prepare individually and defend an executive summary on a topic given by the lecturer.

0800 Phonetics and Lexicology**ECTS credits:** 6**Weekly classes:** 3lec+1sem+0labs+0ps+0.5se**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Department of Bulgarian Language, Literature and Art,

tel.: 082 / 888 437, E-mail: rrusev@uni-ruse.bg

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature Art,

tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg**Abstract:**

The course aims at introducing students to: 1) the science of speech which integrates knowledge of the processes of speech production and perception, acoustic and articulatory characteristics of speech sounds and the supersegmental structure of the speech flow; 2) the science of the lexical system of Bulgarian language by revealing the gnoseological, semiological and semantic features of lexical units, their systematic relations and usage in the different styles of speech; 3) methods and approaches to phonetic and lexical analysis. The course is closely linked to the following courses: *Linguistics*, *Morphology* and *Syntax*.

Course content:

Object of study and tasks of Phonetics and Lexicology. Acoustic, articulatory and functional aspects of the sound. Segmental and supersegmental system of Modern Bulgarian language. Nature and characteristics of the word as a linguistic sign. Semantic variety of the word. Systematic lexical relations. Characteristics of Bulgarian vocabulary. Structure, classification and characteristics of set phrases. Subject and tasks of Bulgarian Lexicography.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Two continuous assessment tests are administered during the semester. The final exam is written.

0801 Old Bulgarian Language**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Todorka Yordanova Georgieva, MA, DPhil., Department of Philological Studies

tel.: 086/ 821 521, E-mail: tgeorgieva@fs.uni-ruse.bg

Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: pometkova@uni-ruse.bg

Abstract:

Old Bulgarian Language is the first course included in the module Historical Linguistics. The aim of the course is to acquaint students with the phonetic system, grammatical structure and lexical content of old Bulgarian language – the earliest written Slavonic language.

Course content:

The educational material included in the course raises students' awareness of the importance of Old Bulgarian language for the development of Bulgarian and Slavonic Studies, of the origin of the old Bulgarian alphabet and old Bulgarian literary language, of the work of St. Constantine-Cyril and Methodius, of the contents and character of the Old Bulgarian alphabets, of the language of the parched books and sheets of paper which have come through the ages. The course introduces students to the phonetical, morphological and syntactical structure as well as the lexical content of Old Bulgarian Language.

Teaching and assessment:

The course is taught in the form of lectures and seminars supplemented with work on Old Bulgarian language written texts. The aim of the course is to lay the foundations of students' knowledge about Bulgarian language by introducing them to the fundamental aspects in the development of the phonetic systems and grammatical structure originating in Proto-Slavic language, with the phonetics and grammar of Old Bulgarian. The syntactical and lexical phenomena of Old Bulgarian Language are examined by means of reading comprehension and analysis of written texts.

0802 Medieval Bulgarian History**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Science and Education

Lecturers:

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg

Abstract:

The course is designed to acquaint students with: the basic problems of periodization and historiography of the Bulgarian Medieval period: essential problems of the institutional, economic, political and cultural development of the Bulgarian Medieval State. Students completing this course will be able to interpret in an independent way the historical events covered by this course.

Course content:

Periods, sources and historiography of the medieval Bulgarian state. Slavs. Proto-Bulgarians. Establishment of the Bulgarian state on the Balkans. Chan Tervel-the constructor. Political crisis in Bulgaria during 8th century. Bulgaria during the first half of the 9th century. Conversion to Christianity. The deed of St. St. Cyril and Methodius. Spiritual and political progress of Bulgaria during the kingdom of King Simeon. Formation of the Bulgarian nationality.

Teaching and assessment:

The course is taught by lectures and seminars. The attendance of all lections and seminary exercises are obligatory. The semester will be validated at the end of the term only if the classes have been attended regularly and if the students have participated in the educational process. During the classes there is oral and written continuous checking.

The course is finished with a written exam, as the final point is based on the assessments made by the continuous assessment and the coursework.

0804 English**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Ivelina Dimitrova Petrova, MA, Department of Foreign Languages

tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg

Sr. Assist. Prof. Elitsa Dimitrova Georgieva, MA, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semester and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The development of speaking and reading skills are specifically targeted.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel; people and their life in big cities; life styles; culture; vocabulary related to linguistics; making presentations.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

0805 German**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

Lecturers:

Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semester and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The development of speaking and reading skills are specifically targeted.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel; people and their life in big cities; life styles; culture; vocabulary related to linguistics; making presentations.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

0806 French**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

Lecturers:

Sr. Assist. Prof. Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semester and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The development of speaking and reading skills are specifically targeted.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel; people and their life in big cities; life styles; culture; vocabulary related to linguistics; making presentations.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**0807 Russian****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

Lecturers:

Sr. Assist. Prof. Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semester and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The development of speaking and reading skills are specifically targeted.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel; people and their life in big cities; life styles; culture; vocabulary related to linguistics; making presentations.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

2594 Classical and Western European Literature**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** oral**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Sr. Lecturer Iliana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, Department of Bulgarian Language, Literature and Art

тел.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Abstract:

The course in Classical and Western European Literature plays an essential role in the development of the literary knowledge and skills of the students from the degree programme "Bulgarian Language and History". It aims at introducing students to the literary aesthetics and conventions of the literary schools in the Western European countries: Italy, France, England, Spain and Germany.

Course content:

Lectures and seminars on West European literature follow the major periods, movements and schools in literature of Western Europe until the late 20th century: the Medieval literature, the Renaissance, Classicism, the Enlightenment, the Romanticism, the Realism, the Naturalism, the Symbolism and The Parnasizam.

Teaching and assessment:

The lectures and seminars are tailored to exercise literary-theoretical and historical-literary training of students. The training is conducted through course lectures and seminars. In seminars the focus is on interpretation of literary works, using different approaches: semiotic, structural, religious and mythical, etc.

2595 Morphology**ECTS credits:** 4**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 437; E-mail: pometkova@uni-ruse.bg

Pr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: kamarini@uni-ruse.bg

Abstract:

The course complies with the recent developments of linguistics and provides a clear idea of the basic principles of how language works, of the characteristic features of the communicative process and of the diversity of the important historical changes that have an effect on language.

Course content:

The word as subject of study of morphology. Parts of speech. Verb tenses. Aspect of the verb. Participles. The Present participle. The Adverb. The Conjunctions. The Particles. The Interjection.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The course is considered valid when students have attended classes regularly, participated actively in the learning process and have had positive results on the two tests.

At the end of the semester there is a written exam, which includes also a practical task. Students receive a positive grade only if their answers on the three tasks are correct.

2596 Bulgarian Revival Literature**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist. Prof. Velislava Vladimirova Doneva, MA, PhD. Dept. of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg

Abstract:

The history of Bulgarian Renaissance literature comprises aesthetic ideas, phenomena and events that are characteristic of the artistic consciousness and spiritual life of Bulgarians from the middle of the 18th century until the 1870s – 1880s. The course aims to outline the main points, stages and work of the more significant authors of the period that have contributed to the development of national aesthetics from Paisiy to Hristo Botev.

Course content:

Bulgarian Renaissance Literature. The Enlightenment period – from the beginning of the 40s of the 19th century. Enlightenment literature of the 1820s – 1840s. Genre and style tendencies of the literary process up to the 1840s. Beginning and development of the new Bulgarian poetry. Bulgarian Renaissance drama. State and characteristics of development of the periodic press during the Renaissance. Folklore and personal poetry during the Renaissance.

Teaching and assessment:

The course is delivered in two forms – lectures and seminars. The seminars follow the topics covered in the lectures. It is required from students to make use of the knowledge acquired in other courses on which they have already had an exam (Literary Theory, Classical and Western-European literature, Bulgarian Folklore, etc.).

The form of assessment is written exam at the end of the semester and defence of a course work prepared in advance.

2597 Archive and Museum Studies**ECTS credits:** 4**Weekly classes:** 2lec+1sem+0labs+0ps+0,5se**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg

Abstract:

The objective of the course is to train the students to gather, examine and systematize historical documents and objects and to prepare them for creative scientific and exploratory work. The basic tasks of the course are: 1. To show the unity and inseparability of the documentary and material heritage and the development of the Bulgarian society; 2. To study the stages for processing and preserving of documents and museum exhibits; 3. To reveal the ways of popularising of archive and museum activities.

Course content:

Knowledge of archives as a science – subject and periods. Documenting the history in the period 681- 1878. Bulgarian legislation and archive museum deed in the end of 19th century. Scientific technical elaboration of the archive and museum finds. Expertise of the scientific and practical value of the documents. Systematizing of archives and documents. Search and selection of the documents for publishing.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students are expected to attend classes regularly and participate actively in seminars. Students' knowledge is assessed by means of continuous assessment tests (at least two). The executive summary includes the study of documents on a given topic in the State archive in Ruse and the Regional Museum of History – Ruse. Some of the research papers are edited and prepared for publishing. The volume of the research paper is about 10 – 12 standard printed pages.

2598 History of the Byzantine Empire**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Volodya Andreev Popov, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, ext. 246**Abstract:**

The course aims at introducing students to the political, economic, material and spiritual culture of one of the biggest medieval empires whose existence is closely linked to the birth and development of the Bulgarian state on the Balkans. The history of Byzantium reflects not only the peculiarities of this region; it is also a bridge between the East and the West, concentrating in itself the collision of two worldwide religions – Christianity and Islam.

Course content:

Byzantine studies as a science. State and administrative structure of Byzantium. Christianity in the Byzantine Empire. Byzantium in the period 4th – 6th century. The Invasion of the Bulgarians of Asparuch. The time of Lion the Sixth and relations with Simeon. The Lekapenos and Konstantin Porphyrogenetos (Konstantin VII). The first Comines – crusades, Eastern policy. The decay of Byzantium during the time of the Angels. Fourth crusade – the fall of Constantinople. Restoring of the Byzantium empire. Turkish invasion on the Balkans and the doom of Byzantium. Cultural heritage of Byzantium.

Teaching and assessment:

Students are introduced to the theoretical background of the subject matter. Individual work is also included in the program – writing of an executive essay.

The course is delivered in the form of lectures and seminars. Students are expected to attend classes regularly and participate actively in the seminars. The course ends with a written exam.

2599 History of the Balkan People**ECTS credits:** 3**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The aim of the course is to acquaint students with the detailed history of the people on the Balkans in the period from 14th century until today on the background of the general Bulgarian history. The course focuses on establishing the shared and specific phenomena in the history of the Balkan people. The contents are divided in three units covering the following periods: 1. From the 14th century until the Berlin Congress; 2. Form 1878 until the First World War (WWI) 3. Social, economic, political and cultural development after the WWI.

Course content:

The term “Balkans: as a term in historic courses. Establishment of the Ottoman state. The Ottoman invasion in the Balkans. Religious discrepancies Islam –Christianity. Decline of the Turkish Empire. Greece under the Ottoman rule and the Greek Revival. The Greek National Revolution. The Berlin Treaty and the Balkan people. The Balkans at the end of the 19th and the beginning of the 20th centuries. The Versailles system of peace treaties and the Balkans. Balkan states between the two World Wars. World War Two and the Balkan people.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The course of lectures is read by an associate professor or a tutor with a PhD degree. Students’ attendance and active participation in seminars is obligatory. The research paper is based on published sources and research publications on Bulgarian history. The volume of the paper is about 10 – 12 standard printed pages.

2600 Bulgarian History 15th – 19th Century**ECTS credits:** 3**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Ivan Iliev Stoyanov, MA, DHis, "St. Cyril and St. Methodius" University of Veliko Tarnovo
Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course plays a significant role in the system of the professional and pedagogical development of the future teachers. The course of lectures comprises of two units: 1. Economic status, political status and armed riots and culture of the Bulgarian people in the period 15th – 17th c. and 2. The Bulgarian Revival – the climax of economic development, national identity and he fights for national liberation.

Course content:

Sources. Periods. Turkish military feudal system in the Bulgarian lands. Bulgarian people and the Turkish internal politics. Periods, sources, historiography and character of the Bulgarian Renaissance. Struggle for liberation of the Bulgarians at the end of 18th – 19th c. Struggle for church independence. Rebels and national liberating movement during the first half of 19th century and in the period of the Crimean war. Organised national liberation struggle. The liberation of Bulgaria.

Teaching and assessment:

The course is delivered in the form of lectures and seminars in two semesters. Students have to attend classes and participate actively in them. Continuous assessments tests (at least two in a semester) are given at defined intervals. If students have not attended classes and they don't have an excusable reason for that, their semester is not validated.

0804 English**ECTS credits:** 3**Weekly classes:** 0lec+0sem+0labs+2ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**Sr. Assist. Prof. Ivelina Dimitrova Petrova, MA, Department of Foreign Languages
tel.: 082 / 888 803, E-mail: ipetrova@uni-ruse.bg
Sr. Assist. Prof. Elitsa Dimitrova Georgieva, MA, Department of Foreign Languages
tel.: 082 / 888 815, E-mail: edgeorgieva@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semesters and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The skills of writing and reading are specifically targeted in the course.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to methodology, writing different types of essays.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. Students' knowledge is assessed on the basis of the results from two tests administered during the semester. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

0805 German**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Sergey Vasilev Bartenev, MA, Department of Foreign Languages

tel.: 082 / 888 230, E-mail: sbartenev@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semesters and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The skills of writing and reading are specifically targeted in the course.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to methodology, writing different types of essays.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. Students' knowledge is assessed on the basis of the results from two tests administered during the semester. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written**0806 French****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Romyana Ivanova Milanova, MA, Department of Foreign Languages

tel.: 082 / 888 824, E-mail: ruivanova@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semesters and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The skills of writing and reading are specifically targeted in the course.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to methodology, writing different types of essays.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. Students' knowledge is assessed on the basis of the results from two tests administered during the semester. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

0807 Russian

ECTS credits: 3**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Sr. Assist. Prof. Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg**Abstract:**

The course aims at improving students' communicative competence in the relevant foreign language by building upon the knowledge they've acquired in the previous semesters and giving them language resources they will use in their future professions. Emphasis is placed on expanding students' awareness and usage of different grammatical and lexical resources and acquainting the students with the stylistic features of academic language. The skills of writing and reading are specifically targeted in the course.

Course content:

The course contains a wide range of topics, related to the course materials used and the interests and future communicative needs of the students. These include: travel, people and their life in big cities, life styles, culture, vocabulary related to methodology, writing different types of essays.

Teaching and assessment:

The course is taught through practical classes. All language skills are developed in parallel. Learners' autonomy is encouraged by discussing different methods and techniques of foreign language learning. Personal involvement and motivation are encouraged by means of a variety of relevant and interesting tasks and techniques such as group work with spokespersons and posters, listening with note taking and follow-ups. Students' knowledge is assessed on the basis of the results from two tests administered during the semester. The semester is validated provided that students have attended classes regularly and have been actively involved in the learning process.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** written

2601 Pedagogical Psychology

ECTS credits: 5**Assessment:** continuous assessment**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Prof. Stoyko Vanchev Ivanov, MA, PhD, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, PhD, Dept. of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bg**Abstract:**

The subject aims at introducing students to the psychological mechanisms and regularities of the educational activities in the educational process.

Course content:

Students will study the new functions of psychological knowledge. They will acquire the latest methods for psycho-diagnosis during game and learning activities, the ways of motivating the teaching/learning process, the psychological conditions underlying the effective educational process. Special attention is paid to the process of forming children's personality through the basic educational activities in educational process.

Teaching and assessment:

The course is taught by using a combination of lectures and seminar classes (tests, methods of psycho-diagnosis).

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written

2602 Children and Teenage Literature**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Mira Zhivodareva Dushkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/888 612, E-mail: mdushkova@uni-ruse.bg**Abstract:**

The course aims at introducing students to the specifics of children and teenage literature and its social and cultural nature. The focus of study is on writers from classical Bulgarian and foreign literature. The course has a direct link to the study of the theory of literature and methods for teaching Bulgarian language and literature.

Course content:

Essence and specifics of Children and Teenage Literature. Folklore and children literature. The fairy tale. Roots of Children and Teenage Literature in the Classical and Medieval periods. The heritage of the Renaissance and the Enlightenment. The literature of "nonsense". Children and Teenage Literature and the recognition of Realism – Charles Dickens, Mark Twain. The teenage adventure novel. Renaissance literature for children.. Children poetry after the Liberation. Bulgarian children's literature between the First and Second World War. Contemporary poetry and prose for children.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The course is considered valid when students have attended the lectures and seminars regularly and have also submitted a course assignment. The exam involves students answering two questions – one from the field of world literature for children and teenagers and the other – from the field of Bulgarian literature for children and teenagers.

2603 Modern Bulgarian Literature**ECTS credits:** 2**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Romyana Dimitrova Lebedova, MA, PhD, Department of Philological Studies

E-mail: rlebedova@fs.uni-ruse.bg

Pr. Assist. Prof. Nikola Dimitrov Benin, MA, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course of lectures presents the development of the ideological and thematic searching in the national literature during the period. It traces the change of styles, aesthetic, philosophic, conceptual and ideological dominants in the Bulgarian literature from the year of 1978 until the 1920s. It examines the classical interpretations of the literary process, the synchronous critical image of the studied period and introduces the latest interpretations of Bulgarian literary tradition.

Course content:

Ivan Vazov – inseparable part of Bulgaria, classicist of Bulgarian literature. Constantin Velichkov. Zachary Stoyanov. Aleko Konstantinov. Pencho Slaveikov. Elin Pelin. Dimcho Debelianov. Peyo Yavorov. Kiril Christov.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The course is considered valid only when students have completed the tasks given at the seminars and have attended regularly the seminars and lectures.

2604 Syntax**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 437; E-mail: pometkova@uni-ruse.bg

Pr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,

tel.: 082 / 888 612, E-mail: kamarini@uni-ruse.bg

Abstract:

The course complies with the recent developments of linguistics and provides a clear idea of the basic principles of how language works, of the characteristic features of the communicative process and of the diversity of the important historical changes that have an effect on language.

Course content:

Syntax and as a science and its subject. Word combinations. Classification of simple sentences. Main parts of the simple sentence. Secondary parts of two-compound sentences. Parenthetical syntax units. Complex sentences. The complex sentence – types. The Complex compound sentences – types. Multicomponent complex sentences.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The students have to prepare an individual task – a course assignment. The course is considered valid when students have attended classes regularly, participated actively in the learning process and have had positive results on the two tests as well as after presenting their executive summaries on a topic of interest and outstanding importance on Bulgarian Syntax. At the end of the semester there is a written exam, which includes also a practical task. Students receive a positive evaluation only when their answers on the three tasks are positive.

2605 Stylistics and Text Linguistics**ECTS credits:** 5**Weekly classes:** 2lec+0sem+0labs+1ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: rusev@uni-ruse.bg

Assoc Prof. Mira Zhivodareva Dushkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg

Abstract:

The course main aims are: 1. To provide students with the knowledge of the stylistic potential of linguistic units realized as sign entities in the system of language and in different types of texts; 2. To examine the features of functional styles in Bulgarian literary language; 3. To reveal the character of the text as a supreme linguistic unit with a real communicative value; 4. To clarify the problems connected to the structuring of a text.

Course content:

Common theoretical problems of stylistics as branch of linguistics. Sign communication and style. Model of the communicative process. Features of the linguistic text. Meaning of linguistic texts. Communicative register and semantic structures of relation. Linguistic mechanisms and media for text collocation. Text stylistics.

Teaching and assessment:

The course is delivered in the form of a theoretic set of lectures and seminars. Two control tests are administered. The course ends with a written exam based on a specific syllabus. Students have to write individually and defend a course assignment on a topic given by the lecturer.

2606 History of the Balkan People**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The aim of the course is to acquaint the students with the history of the people on the Balkans in the period from 14th century until today on the background of the general Bulgarian history. The course focuses on establishing the shared and specific phenomena in the history of the Balkan people. The contents are divided in three units covering the following periods: 1. From the 14th century until the Berlin Congress; 2. Form 1878 until the First World War (WWI) 3. Social, economic, political and cultural development after the WWI.

Course content:

The term "Balkans" as a term in historic courses. Establishment of the Ottoman state. The Ottoman invasion in the Balkans. Decline of the Turkish Empire. The Balkans at the end of the 19th and the beginning of the 20th centuries. The Versailles system of peace treaties and the Balkans. Balkan states between the two World Wars. The Balkans in the system of international relations. World War Two and the Balkan people.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The attendance of all lectures and seminars is obligatory. The semester is validated if students have attended classes regularly. The course ends with a written exam.

The course assignment is based on published sources and research publications on Bulgarian history. Every two weeks the course tutor checks the progress of the course assignment. The volume of the essay should be more than 12 – 15 standard printed pages.

Weekly classes: 1lec+1sem+0labs+0ps+1ca**Type of exam:** written**2607 Bulgarian History 15th – 19th Century****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Ivan Iliev Stojanov, MA, PhD, DSc, "St. Cyril and St. Methodius" University of Veliko Tarnovo
Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course plays a significant role in the system of the professional and pedagogical development of the future teachers. The course of lectures comprises of two units: 1) Economic status, political status and armed riots and culture of the Bulgarian people in the period 15th – 17th c. and 2) The Bulgarian Revival – the climax of economic development, national identity and he fights for national liberation.

Course content:

Turkish military feudal system in the Bulgarian lands. Periods, sources, historiography and character of the Bulgarian Renaissance. Struggle for liberation of the Bulgarians at the end of 18th – 19th c. Struggle for church independence. Rebels and national liberating movement during the first half of 19th century and in the period of the Crimean war. Organised national liberation struggle. The liberation of Bulgaria.

Teaching and assessment:

The course is delivered in the form of lectures and seminars in two semesters. Students have to attend classes and participate actively in them. If students have not attended classes and they don't have an excusable reason for that, their semester is not validated. The course ends with a written exam. The course includes the writing of a course assignment. The grade on the course assignment is included in the final grade, i.e. the exam grade is an arithmetical mean of the two course assignments from both semesters and the exam grade.

Weekly classes: 2lec+1sem+0labs+0ps+1ca**Type of exam:** written

2608 Ethnology**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Nikolay Ivanov Nenov, MA, PhD, Ruse Regional Museum of History

tel.: 082 / 825 002, E-mail: nenoff@abv.bg

Pr. Assist.Prof. Velislava Vladimirova Doneva, MA, PhD, Dept.of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg**Abstract:**

The course aims at introducing students to the basic theoretical problems of ethnology. Basic problems related to the interpretation of human societies from the ethnologic point of view are examined, as well as the ethnological interpretation of man and his role in the annual cycle of rituals, life cycle, etc.

Course content:

Ethnology as a science. The human, human communities and societies in the system of science. Ethnics and ethnic development processes. Space and time in ethnic studies. Kinship. Systems of kinship. The annual cycle of rituals. Life cycle and human development.

Teaching and assessment:

The course is delivered in the form of lectures which present the recent developments in the field.

Students are introduced to the theoretical background of the learning material. Individual work is also included in the course. The topic of individual work is given during the first week of the semester and the paper has to be submitted by the end of the semester.

The topics in the course are related to other courses – Bulgarian Folklore, History of Bulgarian Literature, Linguistics, History etc.

2609 The Cultural-historical Heritage of Bulgaria**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:** Department of Pedagogy, Psychology and History,
Faculty of Natural Sciences and Education**Lecturer:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zdravkova@uni-ruse.bg**Course description:**

The course objective is to introduce students to the core problems of the human civilization formed on the Bulgarian lands, as well as to the society evolution from ancient times to nowadays. The course gives an in depth and clear notion about numerous artifacts – antique, from the middle ages, the Bulgarian national revival to modern times.

Course contents:

The Bulgarian lands in the Stone Age. The Thracians and the Thracian culture historical heritage. The First Bulgarian state – the Golden Age of the Bulgarian culture. The Second Bulgarian state – urban architecture, church constaction; The Turnovo literary school. Late middle age – literary activities and fist printed books. The modern time – sculptures and painting; enlightening activities. Nature sights and resorts.

Teaching and assessment:

The teaching process is conducted by lectures and. Students have two tests during the term. They get a term certification if they have regularly attended the lecture classes and if they have satisfactorily done the assigned tasks. Students sit up for a written examination on core problems from the course syllabus.

2610 Regional Studies**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

Students receive scientific theoretical, methodological and practical knowledge in all areas of the Regional Studies activities. They are acquainted with the methods of searching, processing, systematizing and preserving the materials and documents about the past of their home region. Students completing this course will be able to work successfully in the future as teachers, to be actively engaged in the organization of historical and ethnographic museum school exhibition collections, to write the history of the school or the settlement they live or work in.

Course content:

Theoretical aspects of Regional Studies, tasks and methods. Connection of the course with special sciences. Regional Studies research of different periods, etc.

Teaching and assessment:

The course is delivered with the help of visual materials, which developed the practical skills and the habits necessary for the critical evaluation of regional studies materials.

2611 Pedagogy**ECTS credits:** 5**Weekly classes:** 2lec+2sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg**Abstract:**

The course is designed to introduce students to the basic theoretical fundamentals and main practical methods for putting into practice the educational and upbringing processes in the contemporary secondary school system.

Course content:

Common problems of the pedagogical science. Basic pedagogical concepts. Theory of upbringing – principles and methods of instruction. Theory of education (didactics) – principles of education, methods of education, forms of education, problem and programmed education, differentiation and individualization of education and basic features of the teacher's profession.

Teaching and assessment:

The course is delivered in the form of lectures and seminars.

Every student is assigned an individual course assignment related to the topics discussed at the seminars. It is developed individually and its volume should exceed 10 pages.

2612 Appropriate Manner of Speech**ECTS credits:** 5**Weekly classes:** 2lec+2sem+0labs+0ps+ca**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Prof. Dimitrina Ignatova Tsoneva, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 738; E-mail: dtzoneva@uni-ruse.bgPr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,
tel.: 082 / 888 612, E-mail: kamarini@uni-ruse.bg**Abstract:**

The course is designed to help students improve their written and oral speech by acquiring the norms of Modern Bulgarian and the speech etiquette; to learn how and be able to write business letters and documents; to gain an insight on the different type of genre models, standards and requirements for writing scientific reports, articles, scientific announcements, treatises, etc.

Course content:

Culture of speech and society. Conditions for speech activity. Types of communicative spheres. Problems of the Bulgarian speech etiquette: addressing the listener; personal nouns and vocative forms; the form of polite address, third person forms and speech etiquette; holidays and festivities and etiquette. Enrichment of speech culture: literary pronunciation and orthography, contemporary Bulgarian punctuation, etc. Writing business letters. Delivering public speech.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The lectures and the seminars are taught in parallel and the main linguistic problems are illustrated by selected examples, tables, diagrams on OHP or lantern slides. The students prepare a course work which includes the writing of a formal address or congratulatory letter, CV, records of proceedings, contract, letter of intent, etc.

2613 Modern Bulgarian Literature**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** oral**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Romyana Dimitrova Lebedova, MA, PhD, Department of Philological Studies
E-mail: lebedova@fs.uni-ruse.bgPr. Assist. Prof. Nikola Dimitrov Benin, MA, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg**Abstract:**

The course of lectures presents the development of the ideological and thematic quest of the national literature during the period. It traces the change of styles, aesthetic, philosophic, conceptual and ideological dominants in the Bulgarian literature from the year of 1978 until the 1920s. The course presents the classical interpretations of the literary process, the synchronous critical image of the studied period and introduces the latest interpretations of Bulgarian literary tradition.

Course content:

Ivan Vazov – inseparable part of Bulgaria, classicist of Bulgarian literature. Constantin Velichkov. Zachary Stoyanov. Aleko Konstantinov. Pencho Slaveikov. Elin Pelin. Dimcho Debelianov. Peyo Yavorov. Kiril Christov.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Every student has to write a course assignment in which they interpret a piece of work from the authors included in the syllabus.

The course is considered valid only if students have completed the tasks given at the seminars and have attended regularly the seminars and lectures.

The course ends with an oral exam.

2614 Russian Literature**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Mira Zhivodareva Dushkova, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg

Sr. Lecturer Iliyana Gancheva Benina, MA, PhD, Department of Foreign Languages

tel.: 082 / 888 815, E-mail: ibenina@uni-ruse.bg**Abstract:**

The main aim of the course is to present the rich creativity of the most outstanding representatives of Russian literature who have essential contribution to the world literary heritage. The thematic framework of the course includes a selection of Russian classicists as well as contemporary authors. The period examined is 19th and 20th century. The interpretation of literary works of the selected authors is done in the context of the corresponding literary tendencies which are characteristic of the given period.

Course content:

Introduction to Russian literature. Periods of Russian literature from the 19th century and the beginning of the 20th century. The Russian literature at the end of the 19th century and the beginning of 20th century. Russian modernism: symbolism, acmeism, futurism. Russian prose at the beginning of the 20th century. The Emigration prose (Vladimir Nabokov).

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The course is considered valid only if students have completed the tasks given at the seminars and have attended classes regularly. Students also have to write individually a course assignment.

2615 Modern General History – Part 1**ECTS credits:** 6**Weekly classes:** 2lec+2sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written and oral**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Velichko Kerchev Panteleev, ML, PhD, Department of Public Law

tel.: 082 / 888 740, E-mail: vpanteleev@uni-ruse.bg

Kapka Ivanova, Department of Pedagogy, Psychology and History

tel.: 082 / 888 434, E-mail: kvivanova@uni-ruse.bg**Abstract:**

The course examines historical events from the middle of the 17th till the beginning of the 20th century. The wide range of facts and events makes it possible to follow the historical process in its completeness, to draw the lines of the relations between people and society and to form an awareness about a contemporary civil behaviour.

Course content:

English middle-class revolution; Absolutism in France, Germany, Austria. The creation of USA. French revolution from the end of 18th century. France in the period of consuls and the empire; The Vienna congress and the Sacred alliance; Restoration in France and the July revolution from the 1830; The revolutions in Europe 1848 – 1849; The Civil war in the USA; Unity of Germany and Italy; Europe, Russia and the USA at the end of the 19th century. Austro-Hungaria at the end of 19th century. International relations. First World War.

Teaching and assessment:

The course employs different types of learning experience. Lectures provide the theoretical background on the main topics included in the syllabus. The exam involves answering two questions from the course of lectures supplemented if necessary with more theoretical or practical questions. The aim of the course assignment is to introduce students to scientific research publications on a specific problem, to enrich their knowledge about the historic development. Thus students acquire the necessary understandings for the essence of the historic processes and get to know the dynamics of international relations.

2616 Psycholinguistics**ECTS credits:** 2**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Rusi Dimitrov Rusev, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/888 437, E-mail: rrusev_rd@uni-ruse.bg**Abstract:**

The course aims at introducing students to the main periods in the development of Psycholinguistics, the main notions, methods and problems of contemporary psycholinguistics. It reviews in details psycholinguistic models and theories of speech and the problems, connected with modelling the processes and understanding of the text (oral and in written form).

Course content:

Psycholinguistics as a science and its place among the sciences. Methods of Psycholinguistics. Specifics of psycholinguistic approach to analysis of linguistic events. Psycholinguistics of the reception and understanding of coherent and complete written text. Psycholinguistics and the development. Psycholinguistics of the oral interaction. Psycho poetics. Psycholinguistics and personality.

Teaching and assessment:

The course is delivered in the form of a series of theoretical lectures. The oral method of exposition is used. Two tests are given on the material studied. The course ends with a written exam.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written**2617 Dialectology****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/888 437; E-mail: pometkova@uni-ruse.bgPr. Assist. Prof. Daniela Nikolova Kamarincheva, MA, PhD, Dept. of Bulgarian Language, Literature and Art,
tel.: 082/888 612, E-mail: kamarini@uni-ruse.bg**Abstract:**

The course's main objective is to acquaint students with the dialectological differentiation based on geographical and linguistic principles. The students get to know the relation between the Bulgarian literary language and Bulgarian dialects, as well as with the regional written forms of Bulgarian. Apart from these they are also being taught the methodology of contemporary dialect research.

Course content:

The science of dialectology. Basic terms and notions in dialectology. The formation of Bulgarian dialects. The Bulgarian language among other Slavonic and Balkan languages. Dialectological differentiation of Bulgarian. Character of Bulgarian dialectal differentiation. Teaching Bulgarian in dialect environment. Social dialects. History of Bulgarian dialectology

Teaching and assessment:

The course consists of a theoretical series of lectures and seminars. The semester is validated according to students' attendance of the lectures, the participation in the seminars.

Weekly classes: 1lec+1sem+0labs+0ps**Type of exam:** written

2618 Phraseology and Lingo-Cultural Studies**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082/888 437, E-mail: enedkova@uni-ruse.bg

Abstract:

The course aims to enrich the knowledge of students about the different aspects of contemporary research on phraseology – structural and semantic, pragmatic and linguo-cultural. It will also contribute to the development of students' skills to analyze, reach a conclusion and summarize as well as to conduct small scale research on the basis of the acquired skills for working with specific linguistic materials.

Course content:

Characteristic Features of the Phraseological Units (PU), Semantic and Structural Classification of the Phraseological Units, Origin, Systematic Relations of the Phraseological Units, The Phraseological Units from the Perspective of Lexemes, Meaning and Form of the Phraseological Units, Thematic Groups, Stylistic Characteristics and Stylistic Functions of the Phraseological Units, National and Cultural Specifics of the Phraseological Units.

Teaching and assessment:

The course of lectures presents the global topics, while the seminars establish the basic phraseological terms and phenomena through their use in productive tasks. The aim is to facilitate the development of the awareness of students – the future secondary school teachers of Bulgarian language and literature – for the phraseological richness of Bulgarian language and the specific national characteristics and views reflected in it.

2619 Theory and Practice of Literary Criticism**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturer:

Assoc. Prof. Mira Zhivodareva Dushkova, PhD, MA, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg

Abstract:

The course presents to students to the specificity of literary criticism and combines theory with practice. It aims at developing students' skills of writing different types of critical texts. The course is directly linked to the following courses – "Literary Theory" and "Methods of Instruction in Bulgarian Language and Literature".

Course content: Subject and Tasks of Literary Criticism. Types of Genres. Specifics of the Literary Critical Genres. Conceptual Theories on the Role of Criticism: Structuralism, Deconstructivism, Formalism, Semiotics, Hermeneutics, Marxist Literary Theory and others. Theories about the Roles of Criticism in the Bulgarian Theory of Literature of the 20th century. The Dispute of the 70s – "Impressionists" vs. "Structuralists". The Review – A Supporting Genre of Literary Criticism. The Function of the Review, Its Role in the Literary Life. Structure and Specific Features. Literary Critical Articles. Structure and Specific Features. Language and Style. The Short Forms: Review, Summary, Annotation. The Thesis as a Literary Critical Text. Structure and Specific Features. What is an essay? The History of the Essay. Literary Examples.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The assessment is continuous and the final mark is given on the basis of students' level of completion of the tasks during the seminars.

2620 Literary History**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Mira Zhivodareva Dushkova, PhD, MA, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg**Abstract:** The course presents to students the specificity of the history of literature. It combines the literary, cultural and historical approach. It attempts to outline the main tendencies and problems in the development of the literary process, to trace the emergence of literary history, to discuss the conceptual frameworks of leading literary historians.**Course content:** Literary History – Subject of Study, Aims and Tasks. Approaches to the Study of Literary History. The Role of the Literary Historian. The Problem “Self – Other” in the Bulgarian Literary History. Types of Literary Histories. The Bulgarian Literary Histories. Memoirs, Diaries and Records of Literary History. The Role of the Literary Periodicals in the Shaping of the History of Literature. Literary Debates – Part of the History of Literature. Literary Surveys as a Material of the History of Literature. About a Project: History of the Literary Life of Ruse.**Teaching and assessment:**

The course is delivered in the form of lectures and seminars. The assessment is continuous and the final mark is given on the basis of students’ level of completion of the tasks during the seminars.

2621 Modern Bulgarian Literature**ECTS credits:** 2**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** oral**Department involved: exam**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Mira Zhivodareva Dushkova, PhD, MA, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 612, E-mail: mdushkova@uni-ruse.bg**Abstract:**

This course is a consolidation course on the History of Bulgarian which makes it possible for the syllabus to include questions on the methodology of literary history, the specific problems of understanding works of art, on the cultural context of the dialogue, the aesthetic quests in it. The course of lectures also includes the tendencies and processes which outline the complex and contradictory nature of the period.

Course content:

Aesthetic development of the Bulgarian literature after WWI. Bulgarian expressionism. Bulgarian diabolism. The story and short novel between the two World Wars. Poetry of the 1940s. The novel of the 1950s and 1960s. Short story transformations during the 1960s and 1970s. The lyrics during the 1960s and 1970s. Features of the literary life during the 1980s and 1990s. Bulgarian postmodernism.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Lectures are presented by the means of the oral method of exposition. At the seminars the problem- solving approach is applied.

2622 Modern History of Bulgaria – Part 1**ECTS credits:** 7**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The basic focus of the course is on the political, economic and cultural development of Bulgaria during the studied period (1878-1918). It gives the necessary knowledge of the future teachers of Bulgarian History for the events in the most recent period of historic development of our country, facilitates the development of active civil behaviour and focuses their attention on research studies.

Course content:

Establishment of the Bulgarian state after the Liberation. The acceptance of the Tarnovo constitution and the appointment of a "knyaz". Beginning of political life. The unity of Kniazestvo Bulgaria and East Romelia and the Great Powers. Wars for national unity – the Balkan Wars and WWI. Results and morals.

Teaching and assessment:

The course employs different types of learning experience. The exam involves answering in written form two questions from the course of lectures supplemented if necessary with more theoretical or practical questions. In the course assignment students develop a problem from the contemporary history in the period from the Liberation to the national liberation wars (1878-1918). The volume of the assignment is about 15 – 16 standard printed pages.

2623 History of Religions**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg**Abstract:**

The course examines the issues related to the emergence of the first religious beliefs and ideas in antiquity (animism, totemism, paganism), the development of whole religious and philosophic doctrines (Hinduism, Zoroastrism, etc), and the rise of the world religions (Buddhism, Judaism, Christianity, Islam). The course pinpoints the common elements of the different religious beliefs, elements that underline the idea of universality of religious thought and of the preached moral values.

Course content:

Religion as a spiritual necessity. What is religion and what is religious belief? Emergence of the religious idea. Animism and Totemism. Development of religious philosophy (pantheism, dualism, monotheism). Hinduism. Buddhism. Mazdaism. Judaism. The Decalogue. Appearance and recognition of Christianity. Christianity as a state religion. The church as a religious institution. Christian heresy. Islam – the "borrowed" religion.

Teaching and assessment:

The course is delivered in the form of lectures. Lecture attendance is obligatory. The course is considered valid if students have attended classes regularly and have participated in them. Students' knowledge is assessed by means of a final written exam the questions on it are based on an approved program and syllabus. During the semester students have to write individually a scholarly essay. At the end of the course students sit a written exam and the final grade is based upon the marks of the continuous assessment tests and the scholarly essay.

2625 Methods of Teaching Bulgarian Language**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437; E-mail: pometkova@uni-ruse.bg**Abstract:**

The course aims at giving students theoretical and practical knowledge about the nature and specific features of the teaching and instructive process of Bulgarian language at secondary school level. Students receive theoretical knowledge and acquire practical skills which serve as the basis for their work during their teacher training practice.

Course content:

General considerations of the methods of teaching Bulgarian language. Principles of teaching Bulgarian language. Methods of teaching Bulgarian language. Forms of organization of the teaching and learning process of Bulgarian language. Development of linguistic terms. Speech sound teaching and learning. Teaching vocabulary. Teaching morphology. Teaching syntax. Teaching spelling. Teaching stylistics.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students prepare a course assignment on a given topic and illustrate the application of a methodological approach in a specific lesson. The semester is considered valid if students have attended the lectures and seminars regularly and have submitted course assignment approved by the tutor.

The course ends with a written exam. Students write on a summary question from the syllabus and answer questions on the course assignment.

2626 Lesson Observation in Bulgarian Language**ECTS credits:** 1**Weekly classes:** 0lec+0sem+0labs+1ps**Assessment:** preliminary exam**Type of exam:** oral**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437; E-mail: pometkova@uni-ruse.bg**Abstract:**

Bulgarian language lesson observation aims at acquainting students with the way Bulgarian language and literature is taught in the secondary school. It allows students to link the theoretical knowledge on Methods of Teaching Bulgarian and on the other language courses with practical ideas so that students could establish good rapport with the pupils and become familiar with the teaching process in the Bulgarian school.

Course content:

Presenting linguistic items: in morphology, syntax, lexicology, stylistics and textlinguistics

Practice skills lesson: in morphology, syntax, lexicology, stylistics and textlinguistics

Revision lesson: in morphology, syntax, lexicology, stylistics and textlinguistics

Teaching and assessment:

Students are divided in groups of 10 and observe Bulgarian language lessons taught by mentors at selected schools. The students write down the lesson plans, take notes on preliminary given criteria for lesson evaluation. The lessons observed are discussed after the observation and in this discussion all students and the methodology lecturer participate.

2627 Methods of Teaching Literature**ECTS credits:** 5**Weekly classes:** 2lec+1sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg
Pr. Assist. Prof. Nikola Dimitrov Benin, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 664, E-mail: nbenin@uni-ruse.bg

Abstract:

The course aims at providing students with the basic methodological training of the future teachers of Bulgarian literature (5th – 12th grade). The systematic course acquaints students with the character and specific features of literature as a school subject, with the aims, tasks and stages of the education in literature, with the principles, forms and methods of work in literature lessons and so on.

This course is closely related to the courses on Theory of Literature and Methods of Teaching Bulgarian Language.

Course content:

Aims and tasks of the education in literature. Features of the teaching and learning of literature. Classification of lessons in literature. Methods and methodology of literary analysis. The epic genre in the teaching of literature. The lyrical genre in the teaching of literature. Drama genres in the teaching of literature.

Teaching and assessment:

During the lectures students discuss the different approaches to designing lessons aimed at interpreting different literary texts according to their genre types. The course is considered valid only if students have attended regularly lectures and seminars and have submitted a course assignment. The exam ticket comprises of two questions. The course assignment is included in the final grade.

2630 Lesson Observation in Literature**ECTS credits:** 1**Weekly classes:** 0lec+0sem+0labs+1ps**Assessment:** preliminary exam**Type of exam:** oral**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg

Abstract:

Bulgarian literature lesson observation aims at acquainting students with the way Bulgarian literature is taught in the secondary school. It allows students to link the theoretical knowledge on Methods of Teaching Literature and on the other language courses with practical ideas so that students could establish good rapport with the pupils and to become familiar with the teaching process in the Bulgarian school.

Course content:

Presenting items: Bulgarian and foreign literature, History of Literature, Theory of Literature and Literary Critique

Practice skills lesson: text interpretation

Revision lesson: literature exercises

Teaching and assessment:

Students are divided in groups of 10 and observe Bulgarian Literature, lessons taught by mentors at selected schools. The students write down the lesson plans, take notes on preliminary given criteria for lesson evaluation. The lessons observed are discussed after the observation and in this discussion participate all students and the methodology lecturer.

2631 Methods of Teaching History**ECTS credits:** 4**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Pr. Assist. Prof. Tsvetana Georgieva Ivanova, MA, PhD, "Episkop Konstantin Preslavski" University of Shumen

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The course aims at acquainting students with the results from the scientific methodical research in Bulgaria and abroad and the practical work of Bulgarian teachers. The study material gives a chance to the students to acquire knowledge about the methodical, logical and psycho - pedagogical foundations, so that they can develop professional skills for organisation and managing the process of teaching and learning history.

Course content:

Methodology of Teaching History – scientific foundations. Methodological and psycho-pedagogical bases of the education in history. Didactic principles. Integration tendencies in education. Methods of teaching history. The lesson as a basic organizational form. Types of lessons. Independent work of the pupils during the history classes. Extracurricular activities in history. Personality of the teacher during the education in history.

Teaching and assessment:

The course employs different types of student participation. Students' attendance of classes is obligatory. The exam involves answering two questions from the course of lectures in a written form, supplemented if necessary with more theoretical or practical questions. The course assignment is a research paper on the history, essence and practical application of a specific didactic problem. Its volume is from 5 to 10 pages.

Weekly classes: 1lec+1sem+0labs+0ps+1ca**Type of exam:** written and oral**2633 Lesson Observation in History****ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The lesson observation aims at acquainting students with the practical side of teaching History, providing an opportunity for them to get to know teachers and pupils and becoming familiar with the teaching process in Bulgarian schools.

Course content:

Lesson observation is linked to the observation of the actual teaching at two school levels – primary and secondary.

Teaching and assessment:

Students are divided in groups of 10 and they observe History lessons taught by leading teachers at selected schools. The students take notes (including the plan of the lesson, the questions asked by the teacher, etc. At the end of the lesson the leading teacher leads a discussion on the lesson observed. During it students and the teacher discuss the teaching methods used, the different interaction patterns, the use of the coursebook, working with the map, etc. Special attention is paid to the reaction of the teacher in different situations.

2634 Modern Bulgarian Literature**ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Mira Zhivodareva Dushkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 /888 612, E-mail: mdushkova@uni-ruse.bg**Abstract:**

This course is a consolidation course on the History of Bulgarian which makes it possible for the syllabus to include questions on the methodology of literary history, the specific problems of understanding works of art, on the cultural context of the dialogue, the aesthetic quests in it. The course of lectures also includes the tendencies and processes which outline the complex and contradictory nature of the period.

Course content:

Aesthetic development of the Bulgarian literature after WWI. Bulgarian expressionism. Bulgarian diabolism. The story and short novel between the two World Wars.. Poetry of the 1940s. The novel of the 1950s and 1960s. Short story transformations during the 1960s and 1970s. The lyrics during the 1960s and 1970s. Features of the literary life during the 1980s and 1990s. Bulgarian postmodernism.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Lectures are presented by the means of the oral method of exposition. At the seminars the problem- solving approach is applied.

Weekly classes: 1lec+1sem+0labs+0ps+1ca**Type of exam:** written**2635 Historical Grammar****ECTS credits:** 3**Assessment:** exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Todorka Yordanova Georgieva, MA, PhD, Department of Philological Studies
tel.: 086 / 821 521, E-mail: tgeorgieva@fs.uni-ruse.bgAssoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: pometkova@uni-ruse.bg**Abstract:**

The course enhances the previous knowledge acquired in the courses belonging to the historic and linguistic modules unified under the topic Historical Linguistics. The course aims at introducing students to the historic development of Bulgarian language from the period of its origin to modern times.

Course content:

The course content introduces students to the specifics of the historic study of Bulgarian language, periodization of Bulgarian linguistic history and the most important features of pre-written, Old Bulgarian, Medieval Bulgarian and Modern Bulgarian period, the tendencies in the development of vowels and consonants, the changes of the name and verb system in Bulgarian.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Essential element of education is the work on Old Bulgarian language texts. The course includes continuous assessment tests which serve as the basis for the final grade. The students have to prepare individually and defend an executive summary on a topic given by the lecturer.

Weekly classes: 1lec+1sem+0labs+0ps+1ca**Type of exam:** written

2637 Modern General History – Part 2**ECTS credits:** 6**Weekly classes:** 2lec+2sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Velichko Kerchev Panteleev, ML, PhD, Department of Public Law

tel.: 082 / 888 740, E-mail: vpanteleev@uni-ruse.bg

Kapka Ivanova, Department of Pedagogy, Psychology and History

tel.: 082/ 888 434, E-mail: kvivanova@uni-ruse.bg

Abstract:

The course material is in accordance with the secondary school History curriculum and the state requirements regarding the educational process at university level for undergraduate studies (Bachelor of Arts degree). It examines historic events that have taken place in a long period of time – from the end of the 18th century till today. Therefore, the material is divided into two parts – Part One and Part Two and the border between them is the end of the 19th and the beginning of the 20th century.

Course content:

International relations after World War, Western European countries and the USA in the period between the two world wars, Countries of the Far East in the period between the two world wars, Second World War 1939 - 1945, Western Europe and the United States after Second World War, International relations 1945-1990

Teaching and assessment:

The course is delivered in the form of lectures and seminars. The final grade is the grade received on the written exam where students write comprehensively on two questions from the course material.

The aim of the course work is to introduce students to research on a specific topic, to enrich their knowledge about the historic development. As a result of that students acquire the necessary skills to understand the nature of the historic process and to get an orientation in the dynamic of international relations.

2637 Modern History of Bulgaria – Part 2**ECTS credits:** 6**Weekly classes:** 2lec+2sem+0labs+0ps+1ca**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturer:

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg

Abstract:

The course discusses the events and phenomena in the following period – the end of the wars (1919) until today. The main focus is put on the political, economic and cultural development of our country during this period. The establishment of the Bulgarian state system is the underlying idea defended in the current course.

Course contents:

Crisis after the wars (1918-1919). Bulgaria on the brink of Civil War in 1923. The coup d'etat on 9 May. Participation of Bulgaria in WWII (1941-1944). Political life in Bulgaria (1944-1948). Economic politics and development of Bulgaria (1944-1947). The establishment of the Stalin model of socialism (1948-1956). External politics of Bulgaria after WWII. Bulgaria on the way to democracy. The 1980 crisis. Cultural development (1944-1999).

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students' attendance of classes is obligatory. The course is considered valid if students have attended classes regularly and participated actively in them. The course ends with a written exam.

The course work is developed on an assigned problem form Bulgarian history in the period from 1919 till today. For its development students are expected to use published materials, the relevant scientific materials and if possible archived materials. The volume of the course work is about 20 standard printed pages. The progress of its development is reported regularly from students to the tutor.

2638 Historiography**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps+1ca**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Tsvetana Georgieva Ivanova, MA, PhD, "Episkop Konstantin Preslavski" University of Shumen
Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The objective of the course is to provide students with information about another time aspect of human activities. Thus students will be able form correct judgments about the past and history, to think over them, to enrich their knowledge about the methods of historical investigation and transfer, to develop correct attitude and tolerance which are necessary for quality assessment.

Course content:

Introduction to historiography – periods, aspects, function. Oral and written history. History in image and gesture. Historical thought in the ancient world. Bulgarian historical knowledge. Pre-Christian and Christian period. Medieval historical chronicle tradition. Modern tendencies during 19th century. Professional historiography from the middle of 19th century. History education.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students are expected to attend classes regularly and to participate actively in the educational process. The grade from the continuous assessment is based either on at least 2 tests or on an exam during the supplementary exam session.

The course assignment includes: thematic historiography or a personal presentation which includes historiographic analysis of the works of historian. The volume of the course assignment is from 1 to 20 pages. It is assigned during the first week of the semester and has to be submitted during the seminars.

2639 Audio-Visual and Information Technologies in Education – Part 2**ECTS credits:** 3**Weekly classes:** 1lec+1sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Margarita Stefanova Teodosieva, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: mteodosieva@ami.uni-ruse.bg
Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Department of Informatics and Information Technologies
tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bg**Abstract:**

The course aims at familiarizing students with the structural components and function of the different devices and video computer systems used in the process of education and to built up skills for their practical use in the teaching process. It has both theoretical and applied character that gives students the opportunity to develop the necessary technical expertise and pedagogical experience.

Course content:

Audio-visual technical devices. Didactic materials for static projection and methods for using them in the educational process. Methodology of the application of video devices in the educational process. Principles of electromechanical and electromagnetic recording and audio production. General characteristics of the electro-acoustical machines. Basic principles of digital recording and production. CD devices.

Teaching and assessment:

The 15 lectures in the course focus on the topics of Classical technical devices, CD devices. The module includes: basic physical and technical principles and educational opportunities offered by the technical devices and methods for their implementation in the teaching process. The seminars aim at developing students' skills for using the technical devices and educational materials, as well as to create their own educational materials.

2640 Teaching Practice in Bulgarian Language**ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: pometkova@uni-ruse.bg**Abstract:**

The Teaching Practice in Bulgarian language aims at acquainting students with the teaching process in Bulgarian language in the junior high and high school level. It provides an opportunity for students to put theory into practice and to establish good rapport with pupils, thus becoming familiar with the work in Bulgarian schools.

Course content:

Presenting linguistic topics in morphology, syntax, lexicology, stylistics and text linguistics. Practice skills lessons in morphology, syntax, lexicology, stylistics and text linguistics. Revision lessons in morphology, syntax, lexicology, stylistics and text linguistics.

Teaching and assessment:

At selected schools students are sent to all classes where Bulgarian language is taught. They contact the teacher of the class in advance. The teacher gives them the lesson topics as they are in his / her long term lesson planning schedule. Students prepare short plans of the lesson they will teach and present it to the teacher or the university lecturer who leads the course in Methods of Teaching Bulgarian Language. At the end of the classes the students and the university methodologist discuss the lessons delivered.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** oral**2641 Teaching Practice in Literature****ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437; E-mail: enedkova@uni-ruse.bg**Abstract:**

The Teaching Practice in Literature aims at acquainting students with the teaching process in literature in the junior high and high school level. It provides an opportunity for students to put theory into practice and to become familiar with the teaching process in Bulgarian schools.

Course content:

Presenting topics: Bulgarian and foreign literature, History of Literature, Theory of Literature and Literary Critique

Practice skills lesson: text interpretation

Revision lesson: literature exercises

Teaching and assessment:

At selected schools students are divided in all classes where literature is taught. They contact the teacher of the class in advance. The teacher gives them the lesson topics as they are in his / her long term lesson planning schedule. Students prepare short plans of the lesson they will teach and present it to the teacher or the university methodologist who leads the course in Methods of Teaching Literature. At the end of the classes the students and the university methodologist discuss the lessons delivered.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** oral

2642 Teaching Practice in History

ECTS credits: 2**Weekly classes:** 0lec+0sem+0labs+2ps**Assessment:** preliminary exam**Type of exam:** oral**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The teaching practice in history aims at acquainting students with the teaching process in junior high and high school level, It provides an opportunity for students to put the theoretical knowledge acquired to practice and to deliver their first lessons, i.e. to act in a real classroom situation, to design and teach real lessons, to talk to and with pupils, to establish rapport with pupils, etc.

Course content:

Close link with the specifics of the school systems and the theoretical knowledge and experienced acquired during the Methods of Teaching History course. One-on-one correspondence between the lesson plan and the lesson delivered.

Teaching and assessment:

At selected schools students are divided in all classes where history is taught. The topic of the lesson which they will deliver is in accordance with the topics of the long -term lesson planning schedule of the teacher. At the end of the classes the students and the university methodologist discuss the lessons delivered. The teaching practice ends with a grade which corresponds to the skills and knowledge demonstrated during the teaching in the classroom, i.e. it is not based on a specific lesson observed by the methodologist; it includes other components – rapport with pupils, demanding requirements, creativity, etc.

2643 History of the Modern Bulgarian Literary Language

ECTS credits: 2**Weekly classes:** 2lec+1sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Todorka Yordanova Georgieva, MA, PhD, Department. of Philological Studies
tel.: 086 / 821 521, E-mail: tgeorgieva@fs.uni-ruse.bgAssoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: pometkova@uni-ruse.bg**Abstract:**

The course aims at providing the students with theoretical knowledge about the development of the modern Bulgarian literary language as one of the most essential cultural processes during the Renaissance, the formation of the norms of the literary language and the elaboration of its expressive means.

The course is closely linked to the following courses: Old Bulgarian Language, History of the Bulgarian Language and Modern Bulgarian Language.

Course content:

History of the new Bulgarian literary language as science.. Birth of the modern stage of development of the Bulgarian literary language. Consideration about building the styles of the Bulgarian literary language during the third quarter of 19th century. Unification processes in the Bulgarian literary language in the period of the Liberation since the beginning of 20th century. Bulgarian literary language during the first two decades of 20th century. Bulgarian literary language during the period of the two world wars. Bulgarian literary language after 9 September 1944.

Teaching and assessment:

The course is delivered in the form of a theoretical course of lectures. The seminars also include tests for checking students' progress. The semester is considered valid only if students have attended lectures regularly. The course ends with a written exam on a topic drawn by the students which requires a summary of the knowledge about the history of the modern Bulgarian literary language.

2644 Pre-Diploma Teaching Practice in Bulgarian Language**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Yana Ivanova Pometkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: pometkova@uni-ruse.bg**Abstract:**

The final teaching practice is the end of the practical training of students from the Bulgarian Language and History Undergraduate Degree Programme. It provides an opportunity for students to put the knowledge acquired during the BA course of education into practice and to become familiar with the teaching progress in Bulgarian schools.

Course content:

Presenting linguistic topic: in morphology, syntax, lexicology, stylistics and textlinguistics. Practice skills lesson: in morphology, syntax, lexicology, stylistics and textlinguistics. Revision lesson: in morphology, syntax, lexicology, stylistics and textlinguistics.

Teaching and assessment:

Students are divided in pairs and teach individually all the Bulgarian language lessons for the week. The teacher of the class observes them while teaching and gives advice or recommendation when necessary, provides support and guidance in the choice of teaching materials.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written**2645 Pre-Diploma Teaching Practice in Literature****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Dimitrova Nedkova, MA, PhD, Department of Bulgarian Language, Literature and Art
tel.: 082 / 888 437, E-mail: enedkova@uni-ruse.bg**Abstract:**

The final teaching practice is the end of the practical training of students from the Bulgarian Language and History Undergraduate Degree Programme. It provides an opportunity for students to put the knowledge acquired during the BA course of education into practice and to become familiar with the teaching progress in Bulgarian schools.

Course content:

Presenting linguistic topics: Bulgarian and foreign literature, History of Literature, Theory of Literature and Literary Critique. Practice skills lesson: text interpretation. Revision lesson: literature exercises.

Teaching and assessment:

Students are divided in pairs and teach individually all the Bulgarian language lessons for the week. The teacher of the class observes them while teaching and gives advice or recommendation when necessary, provides support and guidance in the choice of teaching materials.

Weekly classes: 0lec+0sem+0labs+3ps**Type of exam:** written

2646 Pre-Diploma Teaching Practice in History**ECTS credits:** 3**Weekly classes:** 0lec+0sem+0labs+4ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg

Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The final teaching practice is the end of the practical training of students from the Bulgarian Language and History Undergraduate Degree Programme. It provides an opportunity for students to put the knowledge acquired during the BA course of education into practice and to become familiar with the teaching progress in Bulgarian schools.

Course content:

The final teaching practice corresponds to the annual teaching of the respective teacher, i.e. the time and place of the practice correspond to the long term lesson planning schedule of the mentor.

Teaching and assessment:

The final teaching practice has two stages.

During the first stage all students deliver lessons in one class, while the teacher provides specific guidance and advice with regard to material selection, etc. The aim is for students to acquire practical skills and experience, to get familiar with the pupils, etc. The second stage takes place at the end of the teaching practice when the lesson delivered is evaluated by the university methodologist. The grade given is part of the final grade which includes the grades on the lessons delivered in other subjects, i.e. it is an element of the arithmetical mean grade written in the higher education degree certificate.

2647 Self-Preparation for the State Exam / Bachelor Thesis**ECTS credits:** 4**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:****Type of exam:****Department involved:**Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Bulgarian Language, Literature and Art

Abstract:

Every student has to choose whether to develop a Bachelor Degree Thesis in one of the profiles- Bulgarian Language / Bulgarian Literature or History or to sit for a state exam in the other profile.

Course contents:

The students prepare themselves for a state exam or develop a bachelor thesis. All lecturers from the Department of Bulgarian Language, Literature and Art and from the Department of Pedagogy, Psychology and History support students' effort.

Teaching and assessment:

Independent preparation. No assessment.

2648 Pedagogical Diagnostics**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bgAssoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg**Abstract:****The course aims at development student's skills for planning, organization and skills for empiric research, as well as skills for analysis and presentation of results.****Course content:****History of diagnostics. Basic principles and terms of pedagogical research. Nature and structure of diagnostic process. Presentation and analysis of the result of empiric pedagogical research. Methods of pedagogical research.****Teaching and assessment:**

Basic methods of teaching are: informational – explanatory, illustrative and problematic presentation, as in the front row it is being led the scientific logic of knowledge. The final control is a test.

2649 School Hygiene and Health Education**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The aim of the course in School Hygiene and Health Education is to introduce students to the contemporary tendencies and advances in the study of the human health and health education in school.

Course content:

The course examines such topics as subject matter and methods of study of Health Education; historical survey. Special attention is drawn to the global and regional problems in the result of the pollution. Ecology and school. Physical development and activity. The most common diseases in early age.

Teaching and assessment:

The course comprises of lectures. Lectures are designed to introduce students to new ideas and to provide a model for further analysis.

The theoretical assignment are intended in order students to learn how to prevent children's diseases caused by poor hygiene.

2650 Problems of Deviant Behaviour**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: vaneva@uni-ruse.bg
Pr. Assist. Prof. Vanya Markova Dineva, MA, PhD, Department of Pedagogy, Psychology and History
tel. 082 / 888 544, E-mail: vdineva@uni-ruse.bg**Abstract:**

The course is elective. It aims to make students scientifically comprehensive notion of the current state of the problems associated with deviant behaviour and using psychological and psychotherapeutic methods for existing deviations.

Course content:

The program includes a detailed examination of the:

- behaviour the norm and deviation;
- structure, determinants, types and forms of deviant behaviour
- nature and characteristics of the forms of prevention and therapeutic modalities in types deviant behaviour.

In the finish of the course students develop professional skills for early identification, analysis, averting and deviant behaviour prevention

The final rating on the course is formed by monitoring on the basis of the target material depending on the results of the visit and activity during the lectures

Teaching and assessment:

The teaching process is carried out in the form of lectures that use interactive methods, schemes, models and training films. The current control is done by recording the visit of the students, their active participation during lectures and by discussing, discussion and involvement in the interaction.

2651 Psychology of Communication**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Stoyko Vanchev Ivanov, MA, PhD, University of Sofia
Pr. Assist. Prof. Denitsa Aleksandrova Alipieva, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalipieva@uni-ruse.bg**Abstract:**

Communication is permanent part of human existence, where people establish interpersonal relationships, regulate their own psychical activity, assess the situations and interact with others. The need for study of the core, definition, aspects and types of communication, the characteristics, rules and techniques for effective interactions is natural for professions from social sphere.

Course content:

The course is designed in 20 lectures, with interactive methods and tools, multimedia, usage of schemas, tables, models and videos. In the end of the course students will know not only the aspects of human communication, but will have practical skills for adequate verbal and nonverbal communication in daily and work surrounding.

Teaching and assessment:

The course is delivered in the form of lectures in which interactive methods of teaching are used that include multimedia presentations, schemes, tables, models etc. As a result students will get familiar not only with the main characteristics of human interaction, but will be able to apply in their everyday activities these rules and the verbal and non-verbal communication techniques acquired through the role plays and the solved cases.

2652 Pedagogical Rhetoric**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art
Faculty of Natural Sciences and Education

Lecturers:

Prof Dimitrina Ignatova Tsoneva, MA, PhD, Department of Bulgarian Language, Literature and Art

tel.: 082 / 888 738, E-mail: dtzoneva@uni-ruse.bg

Pr. Assist. Prof. Velislava Vladimirova Doneva, MA, PhD, Dept. of Bulgarian Language, Literature and Art

tel.: 082 / 888 437, E-mail: doneva_v@uni-ruse.bg

Abstract:

The basic aim of the Pedagogical Rhetoric course is to reveal the foundations of rhetoric, which would develop students' awareness of eloquence as a speech act and of rhetoric as a science; to provide the theoretical background for the preparation and presentation of different genres and varieties of public speech and for the techniques of self-mastery of the rhetoric art.

The object of the course are history, theory and methods of teaching rhetoric. Taking into consideration the purpose of the course, the emphasis is placed on eloquence and its development throughout history and nowadays.

Due to its interdisciplinary nature Pedagogical Rhetoric is based on a number of other sciences. Specific data, points of view and conclusions that are made, have been united by one common goal – to unveil the process of speech impact and its significance in the communicative sphere of pedagogy.

Course contents:

The main topics are: History of the rhetoric art. Basic rhetorical classification of orator presentations. Composition of the orator's speech. Linguistic features of the rhetorical speech. Non-verbal communication in the rhetoric art. Technique of delivering successful speech. Psychological analysis of the communication between the speaker and the audience. Methods and techniques of speaking convincingly.

Teaching and assessment:

The course is delivered in the form of lectures. Students receive theoretical knowledge on the basic topics included in the syllabus. Lectures are read during one semester and basic rhetoric terms, and language questions are illustrated by selected examples, tables and slides.

2653 Educational Sociology**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** test**Department involved:**

Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Petar Raikov Petrov, MA, PhD, Department of Pedagogy, Psychology and History

tel.: 082 / 888 219, E-mail: prpetrov@uni-ruse.bg

Abstract:

Course in educational sociology aims to familiarize students with a practical integrative science oriented for educational activity and modern processes and phenomena that occur in education, with particular attention to the education and socialization of children. Hence, the functional plan teaching sociology affects the real process of education and upbringing. Thus, the course has a role and purpose in preparing future teachers for Secondary School.

Course content:

The course is designed according to the requirements of a professional teacher in the area Pedagogical Sciences. There are certain topics that are a natural extension of the traditional course in pedagogy / education theory and didactics /. At the same time it focuses on the content and meaning of interpersonal interactions in the system of education and upbringing, to the structure and mechanisms of social and individual relationships with emphasis on the pedagogical reality.

Teaching and assessment:

Training is done through lecture form of teaching. The lecture teaching and using multimedia, visual and didactic materials and tests. Interactive methods are used to analyze teaching situations occurring in the educational process. The shape of the current control is filling the test.

2653 Religion and Education**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Zlatozhivka Zrdavkova Ivanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 738, E-mail: zzdravkova@uni-ruse.bg**Course description:**

The course is aimed at disclosing a common element in the religious beliefs of different nations, stressing the idea of unity in religious education and thought with the intention of advocating strong moral values. In this way the course helps not only to enrich students' general education but also to familiarize them with a higher moral system.

Course contents:

What is religion and belief? Religious ideas and education in antiquity. Animism and totemism - education of humanity in communion with nature and environmental attitude. Emergence of the idea of God. Polytheistic religions. Mythological variety. Polytheism - education in the separatism of the human community as a way of survival of the family and the tribe. Moral messages and prescribed moral code of Buddhism and mazdaism. Education in positivism. Monotheism - unity in diversity and diversity in unity. Moral messages in development. Education in the unity of the community in positivity, kindness, goodness, rectitude.

Teaching and assessment:

The teaching process is conducted by lectures and. Students have two tests during the term. They get a term certification if they have regularly attended the lecture classes and if they have satisfactorily done the assigned tasks. Students sit up for a written examination on core problems from the course syllabus.

2655 School Legislation, Administration and Economics Education**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg**Abstract:**

Students become familiar with the origins, development and contemporary aspects of school law. To know the purpose and operation of the system administration and school management, and also to clarify for themselves the parameters and possible alternatives to the economy as a non-profit school.

Course content:

To gain knowledge about the nature, content and technology specifics of law school. To master knowledge related to school administration. Form orientation on economic priorities in school, knowledge management and allocation.

Teaching and assessment:

During the course (lectures), students are introduced to the theoretical and practical background in school law and economic administration: a systematic exposition of the material (lecture), lecture, discussion, and analysis of problems and research oriented and more.

2656 Political Science**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturer:**Assoc. Prof. Velichko Kerchev Panteleev, ML, PhD, Department of Public Law
tel.: 082 / 888 740, E-mail: vpanteleev@uni-ruse.bg**Abstract:**

The course aims at acquainting students with the basic tendencies of contemporary political science. It improves the political culture of students and helps them acquire knowledge on the civilised methods for social conflict resolution. Students can get an orientation in the complex political processes, develop skills for political analysis and the making of prognoses and form their political behaviour.

Course contents:

Object of political science. Methods and analysis. Development of political thought. Contemporary political theories. Nature and role of politics. Power as a social phenomenon. Political system. The state – main characteristics. Parliamentarism. Constitutionalism. Political parties and pressure groups. Political leadership. Political culture. The shift from totalitarian regime to democracy.

Teaching and assessment:

The course is delivered in the form of lectures and ends with continuous assessment.

2658 Bulgarian Constitutions**ECTS credits:** 2**Weekly classes:** 2lec+0sem+0labs+0ps**Assessment:** continuous assessment**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Prof. Ivan Iliev Stoyanov, MA, PhD, DSc, "St. Cyril and St. Methodius" University of VelikoTarnovo
Pr. Assist. Prof. Reneta Valentinova Zlateva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: rzlateva@uni-ruse.bg**Abstract:**

The objectives of the course are to acquaint student-historians with the basic features of the Bulgarian constitutions from 1879 until today and with the suggested constitutional projects of the same period. Thus the course provides an opportunity for students to trace the development of the democratic principles in Bulgarian society and changes in the historical process in the political situation in the country.

Course content:

The Tarnovo Constitution, the constitutions of the National Republic Bulgaria from 1947 and 1971; the constitution of the Republic of Bulgaria from 1991.

Teaching and assessment:

The course is delivered in the form of lectures and seminars. Students are expected to attend classes regularly and to participate actively in the seminars and lectures. During the semesters at least two tests are administered on the basis of which the final grade is calculated.

2659 Philosophy**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Todor Petrov Todorov, MA, PhD, University of Sofia

Pr. Assist. Prof. Magdalena Stoyanova Zhelyazkova, MA, PhD, Dept. of Pedagogy, Psychology and History
tel.: 0885 208 265, E-mail: mzhelyazkova@abv.bg**Abstract:**

The purpose of the course in Philosophy is to introduce students to the basic moments of the progress of the philosophic thought and to the philosophical problems of the spiritual life of modern society. An overall aim of the course is to help broaden students' outlook.

Course content:

Historical development of Philosophy: Classical, Medieval, Modern and Postmodern philosophical schools and theories; contemporary philosophical tendencies, mainly in the Western European philosophical thought; survival of the human civilization and the freedom of personality.

Teaching and assessment:

Teaching is conducted by means of lectures and seminars. Students are expected do additional reading on the work of prominent philosophers.

Weekly classes: 2lec+0sem+0labs+0ps**Type of exam:** written**2660 Practical Exam in Bulgarian Language, Literature and History****ECTS credits:** 2**Assessment:** exam**Departments involved:**Department of Bulgarian Language, Literature and Art
Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Bulgarian Language, Literature and Art

All lecturers from the Department of Pedagogy, Psychology and History

Abstract:

The practical exam is in the form of a lesson delivered by the student in front of a State Examination Board which is formed on the basis of an ordinance issued by the Rector. The members of the State Examination Commission include as a rule the mentor who has supervised the pre-diploma pedagogical practice of the student. Every student delivers a preliminary designed lesson in Bulgarian language or literature and history.

Course content:

Students must demonstrate their knowledge and skills in planning lessons in Bulgarian language, literature and history, as well as their skills in classroom management and teaching of the relevant educational content.

Teaching and assessment:

The State Exam Board decides on the final mark of each student which is an average of the subtotal of marks given on the assessed lessons delivered by the student in Bulgarian language or Bulgarian literature and History.

Weekly classes: 0lec+0sem+0labs+0ps**Type of exam:** written

2661 State Exam in Bulgarian Language or in Bulgarian Literature**ECTS credits:** 4**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art

Consultants:

All lecturers from the Department of Bulgarian Language, Literature and Art

Abstract:

The state exam is held before the State Examination Board in accordance with an approved syllabus which contains the main topics from the fundamental courses in each of the profiles – Bulgarian language and Bulgarian literature. Students decide which area they will prepare for the State Exam – Bulgarian language or Bulgarian literature.

Course content:

The State exam in the respective area includes all main topics from the courses in Bulgarian language or Bulgarian literature.

Teaching and assessment:

The final year student takes the State exam in front of the State Examination Board.

2662 Bachelor Thesis in Bulgarian Language or in Bulgarian Literature**ECTS credits:** 4**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**

Department of Bulgarian Language, Literature and Art

Faculty of Natural Sciences and Education

Consultants:

All lecturers from the Department involved in the training process

Abstract:

The Bachelor Thesis is an individual creative assignment, which is fulfilled under the leadership of a research lecturer. Its objective is to give the possibility to the students to demonstrate the knowledge and skills accumulated during their study for achieving the objectives and tasks of the Bachelor Thesis and to present their creative development successfully before an Examination Board.

Course content:

The Bachelor Thesis includes one topic or area of the syllabus and students are allowed to choose in which profile they want to develop a Bachelor Thesis – Bulgarian language or Bulgarian literature.

Teaching and assessment:

The Department of Bulgarian Language, Literature and Art provides:

- the organisation of collecting, confirming and announcing of topic suggestions for the Bachelor Thesis;
- the distribution of topics and research leaders among the students;
- the diploma practice organisation;
- the leadership, review and presentation of the Bachelor Thesis.

Weekly tutorials with the research leaders are scheduled for the students.

The final year student presents the Bachelor Thesis before the State Examination Board.

2663 State Exam in History**ECTS credits:** 4**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Pedagogy, Psychology and History

Abstract:

The state exam is held before the State Examination Board in accordance with the approved syllabus which contains the main topics from the fundamental courses in History.

Course content:

The State exam includes all main subjects in History.

Teaching and assessment:

The final year student takes the State exam in front of the State Examination Board.

2664 Bachelor Thesis in History**ECTS credits:** 4**Weekly classes:** 0lec+0sem+0labs+0ps**Assessment:** exam**Type of exam:** written**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Consultants:**

All lecturers from the Department of Pedagogy, Psychology and History

Abstract:

The Bachelor Thesis is an individual creative assignment, which is fulfilled under the leadership of a research lecturer. Its objective is to give the possibility to the students to demonstrate the knowledge and skills accumulated during their study for achieving the objectives and tasks of the Bachelor Thesis and to present their creative development successfully before an Examination Board.

Course content:

The Bachelor Thesis includes one topic or area of the syllabus and students are allowed to choose in which profile they want to develop a Bachelor Thesis in History.

Teaching and assessment:

The Department of Pedagogy, Psychology and History provides:

- the organisation of collecting, confirming and announcing of topic suggestions for the Bachelor Thesis;
- the distribution of topics and research leaders among the students;
- the diploma practice organisation;
- the leadership, review and presentation of the Bachelor Thesis.

Weekly tutorials with the research leaders are scheduled for the students.

The final year student presents the Bachelor Thesis at the State Examination Board.

CURRICULUM
OF THE DEGREE COURSE IN
BULGARIAN LANGUAGE AND HISTORY

(THE TRAINING OF STUDENTS FOLLOWING THIS CURRICULUM STARTED IN THE ACADEMIC
2017/2018 YEAR)

First year

Code	First term	ECTS	Code	Second term	ECTS
SB11841	General Linguistics	5	SB11845	Theory of Literature	5
S00789	Introduction to the Historical Knowledge	1	S00798	Old Bulgarian Literature	3
SB14701	Archeology	3	S00788	Classical and Western European Literature	3
SB14702	Ancient History	7	SB14705	Phonetics and Lexicology	6
SB14703	Medieval Bulgarian History	2	S00801	Old Bulgarian Language	3
S00794	General Medieval History	2	SB14706	Medieval Bulgarian History	5
S00795	Bulgarian Folklore	3	S00803	General Medieval History	3
S01031	Thracology	1			
SB14704	Information and Communication Technologies in Education and Working in a Digital Environment - 1	2			
Elective courses (students elect a course)			Elective courses (students elect a course)		
S00804	English	2	S00804	English	2
S00805	German	2	S00805	German	2
S00806	French	2	S00806	French	2
S00807	Russian	2	S00807	Russian	2
Total for the term:		30	Total for the term:		30

Second year

Code	Third term	ECTS	Code	Fourth term	ECTS
S02594	Classical and Western European Literature	4	S02601	Pedagogical Psychology	5
S02595	Morphology	4	S02602	Children and Teenage Literature	3
S02596	Bulgarian Revival Literature	5	S02603	Modern Bulgarian Literature	3
SB14707	Archive and Museum Studies	4	SB14709	Syntax	5
SB14708	History of the Byzantine Empire	5	SB14710	Stylistics and Text Linguistics	4
S02599	History of the Balkan People	3	S02606	History of the Balkan People	3
S02600	Bulgarian History 15 th – 19 th Century	3	SB14711	Bulgarian History 15 th – 19 th Century	5
Elective courses (students elect a course)			Elective courses (students elect a course)		
S00804	English	3	S02608	Ethnology	2
S00805	German	3	S02609	The Cultural and Historical Heritage of Bulgaria	2
S00806	French	3	S02610	Regional Studies	2
S00807	Russian	3	SB14712	History of Religions	2
			SB14713	Bulgarian Constitutions	2

	Total for the term:	30		Total for the term:	30
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Third year

Code	Fifth term	ECTS	Code	Sixth term	ECTS
S02611	Pedagogy	6	S02621	Modern Bulgarian Literature	2
SB14714	Appropriate Manner of Speech	4	S02622	Modern History of Bulgaria 1	5
SB14715	Modern Bulgarian Literature	4	SB14717	Methods of Teaching Bulgarian Language	5
SB14716	Russian Literature	3	S02626	Lesson Observation in Bulgarian Language	1
S02615	Modern History of Bulgaria– Part 1	7	SB14718	Methods of Teaching Literature	5
SB14538	Inclusive Education	3	SB14719	Lesson Observation in Literature	1
Elective courses (students elect a course)			S02633	Methods of Teaching History	3
S02617	Dialectology	2	S02621	Lesson Observation in History	3
S02618	Phraseology and Lingo-Cultural Studies	2			
S02619	Theory and Practice of Literary Criticism	2			
S02620	Literary History	2			
Total for the term:		30	Total for the term:		30

Fourth year

Code	Seventh term	ECTS	Code	Eighth term	ECTS
S02634	Modern Bulgarian Literature	3	SB14725	History of the Modern Bulgarian Literary Language	4
S02635	Historical Grammar	3	S02644	Pre-Diploma Teaching Practice in Bulgarian Language	2
S02636	Modern General History - Part 2	6	S02645	Pre-Diploma Teaching Practice in Literature	2
S03852	Modern History of Bulgaria - Part 2	7	S02646	Pre-Diploma Teaching Practice in History	3
S02638	Historiography	4	S03865	Self-Preparation for the State Exam / Bachelor Thesis	3
SB14721	Audio-Visual and Information Technologies in Education – Part 2	3	Elective courses (students elect a course)		
SB14722	Teaching Practice in Bulgarian Language	1	SB14726	Pedagogical Diagnostics	3
SB14723	Teaching Practice in Literature	1	SB14727	School Hygiene and Health Education	3
SB14724	Teaching Practice in History	2	SB14728	Problems of Deviant Behaviour	3
			SB14729	Psychology of Communication	3
Elective courses (students elect a course)			SB14730	Pedagogical Rhetoric	3
			SB14731	Educational Sociology	3
			SB14732	Religion and Education	3
			SB14733	School Legislation, Administration and Economics of Education	3
Graduation					
			SB11037	Practical State Exam	2

<i>Code</i>	<i>Seventh term</i>	<i>ECTS</i>	<i>Code</i>	<i>Eighth term</i>	<i>ECTS</i>
			<i>Elective Courses – Group 1 (Students elect one of the courses)</i>		
			S02661	State Exam in Bulgarian Language or Literature	4
			S02662	Bachelor Thesis in Bulgarian Language or Literature	4
			<i>Elective Courses – Group 2 (Students elect one of the courses)</i>		
			S02663	State Written Exam in History	4
			S02664	Bachelor Thesis in History	4
	<i>Total for the term:</i>	<i>30</i>		<i>Total for the term:</i>	<i>30</i>

Total for the course of study: 240 ECTS credits

**UNDERGRADUATE
STUDIES
IN
PEDAGOGY OF THE
EDUCATION IN
MATHEMATICS AND
INFORMATICS**

PROFESSIONAL STANDARDS
OF A BACHELOR IN PEDAGOGY OF THE EDUCATION IN MATHEMATICS AND INFORMATICS

Degree Programme: **Pedagogy of the Education in Mathematics and Informatics**
Educational Degree: **Bachelor**
Professional Qualification: **Teacher in Mathematics and Informatics**
Term of education: **4 years (8 terms)**

The main goal of the degree programme **Pedagogy of the Education in Mathematics and Informatics** is to prepare teachers of Mathematics, Informatics and Computer Science who will possess high professional qualification.

The professional function of the graduates from this Bachelor's course is to teach students from all stages of secondary school in the following subjects: Mathematics, Informatics and Computer Science and also to take any position that requires the use of mathematics and informatics in companies, banks, institutions, laboratories etc.

The teacher with a Bachelor's degree must have high professional training, as well as wide knowledge in mathematics and computer science.

Their education must be accomplished on the basis of:

- **complex training** – studying the basics of mathematics and informatics and computer science, physics, mechanics, foreign languages etc.;
- **special training** – programming, data structures and databases, languages and tutoring systems, and also pedagogic and methodological training in the subject, including the methodology for teaching mathematics and informatics, psychology, elective pedagogical courses, teacher-trainee practice, on-going and pre-graduation practices.

The teacher with a Bachelor's degree in the Pedagogy of the Education in Mathematics and Informatics Programme must have the following skills:

- to apply their knowledge in practice creatively;
- to be able to develop extracurricular classes in Mathematics and Informatics;
- to operate competently with computer equipment, to do text editing, to write computer programs;
- to approach mathematical issues as an expert, to work in university and other research laboratories;
- to adapt and adopt contemporary computer technologies in different fields of industry, commerce, education and banks.

CURRICULUM
OF THE DEGREE COURSE IN PEDAGOGY OF THE EDUCATION IN MATHEMATICS AND INFORMATICS

First year					
Code	First term	ECTS	Code	Second term	ECTS
S01027	Linear Algebra	6	S00074	Discrete Mathematics	6
S01034	Introduction to Programming	8	S00075	Algebra	6
S01051	Mathematical Analysis 1	6	S01030	Geometry 2	6
S01070	Geometry 1	6	S01076	Object-oriented Programming	8
S01947	English 1	4	S01504	English 2	4
Total for the term:		30	Total for the term:		30

Second year					
Code	Third term	ECTS	Code	Fourth term	ECTS
S00048	Mathematical Software	3	S00054	Pedagogical Psychology	5
S00049	Data Structures and Programming	8	S00055	Data Bases	5
S00050	Working and Visual Programming in MS Office	5	S00056	Computer Architectures	4
S00051	Operating Systems	5	S00057	Computer Graphics and Image Processing	5
S00052	Mathematical Analysis 2	6	S00058	Probability and Statistics	6
S00053	Geometry 3	3	S00222	School Course in Algebra	5
Total for the term:		30	Total for the term:		30

Third Year					
Code	Fifth term	ECTS	Code	Sixth term	ECTS
S00223	School Course in Analysis Pedagogic	5	S02042	Methods of Teaching Mathematics	6
S00772	Pedagogic	4	S02043	Methods of Teaching Informatics and Information Technologies	6
S01096	School Course in Informatics and Information Technologies	5	S02048	Lesson Observation in Mathematics	2
S01410	Resource Based Object-oriented Programming	5	S02060	Lesson Observation in Informatics	2
S01411	School Course in Geometry	6	S02063	Multimedia Systems and WEB Design	7
S02001	Ordinary Differential Equations	5	S02064	Computer Communications and Networks	7
Total for the term:		30	Total for the term:		30

Fourth Year					
Code	Seventh term	ECTS	Code	Eighth term	ECTS
S02065	School Pedagogical Practice in Mathematics	2	S02571	Number Theory	5
S02080	School Pedagogical Practice in Informatics and Information Technologies	2	S02572	Pre-Diploma Pedagogical Practice in Mathematics	4
S02216	Audio-Visual and Information Technologies in Education	3	S02573	Pre-Diploma Pedagogical Practice in Informatics	4
Elective courses			Graduation work		4

<i>(students elect a course)</i>					
S02274	Problems in Mathematics Competitions	6	Elective courses (students elect a course)		
S02392	Extracurricular Work in Mathematics	6	S02575	School Hygiene and Health Education	2
Elective courses (students elect a course)			S02576	Pedagogical Communication	2
S02436	Mathematical Optimization	6	S02577	Pedagogical Diagnostics	2
S02564	Numerical Methods	6	S02578	Problems of Deviant Behaviour	2
Elective courses (students elect a course)			Elective courses (students elect a course)		
S02565	Visual Tool for Programming (DELPHI)	5	S02579	School Legislation	1
S02566	Visual Tool for Programming (VC++)	5	S02580	Administration and Economics in Education	1
S02567	Desktop publishing	5	S02581	Educational Sociology	1
Elective courses (students elect a course)			S02582	Educational Ethics	1
S02568	Computer Modeling	6	Total required engagements for the semester:		20
S02569	Problems in Informatics Competitions	6	Elective group (students elect one of the three)		
S02570	Extracurricular Work in Informatics	6	A	Graduation	
			S02583	State Practice-applied Exam in Mathematics, Informatics and Information Technologies	2
			S02584	State Exam in Mathematics	4
			S02585	State Exam in Informatics and Information Technologies	4
			B	Graduation	
			S02586	State Practice-applied Exam in Mathematics, Informatics and Information Technologies	2
			S02589	Written State Exam in Mathematics	4
			S02590	Bachelor Thesis in Informatics and Information Technologies	4
			C	Graduation	
			S02591	State Practice-applied Exam in Mathematics, Informatics and Information Technologies	2
			S02592	Written State Exam in Methods of Teaching Informatics and Information Technologies	4
			S02593	Bachelor Thesis in Mathematics	4
Total for the term:		30	Total for the term:		30

Total for the course of study: 240 ECTS credits

S01027 Linear Algebra**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Tsetska Grigorova Rashkova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail: tsrashkova@uni-ruse.bg, tcetcka@ami.uni-ruse.bg**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics****tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg****Abstract:**

The presented course is fundamental and obligatory for the speciality Pedagogy of the education in Mathematics and Informatics. It is fully based on the high school course in Algebra and gives knowledge for the courses in Geometry, Algebra, Computational Methods, School Course in Algebra, Methods in Mathematics' Education and others.

Course content:

Complex numbers. Determinants – basic properties and calculation. Operations with matrices. Inverse matrix. Linear spaces. Linear independence, bases, dimension. Rank of a system of vectors and of a matrix. Systems of linear equations. Homogeneous systems. Linear transformations and matrices. Eigenvalues and eigenvectors. Euclidean and unitary spaces. Orthonormal bases, method of Gram–Schmidt. Hermitian and symmetric transformations. Orthogonal and unitary transformations. Bilinear and quadratic forms.

Teaching and assessment:

The tutorials follow the lectures. Problems for the next tutorial preparation are given, as well as sets of problems for work by one's own. Two control works are planned after main parts of the curriculum. Their results form the continuous assessment taking into account for the final mark. The students have to make a course work. Its fulfillment is estimated and it is obligatory for validating the semester

S01034 Introduction to Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Tzvetomir Ivanov Vassilev, MEng., PhD, Department of Informatics and Information Technologies,

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies,

tel.: 082 / 888 326; E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge for developing algorithms and programmes in C++ programming language. The course focuses on the main data structures in the programming language C++ and on the main operations with that data. Special attention is paid on algorithm development being the basic step for writing programs. The practice sessions aim at acquiring skills for developing algorithms and programs.

Course content:

Algorithm development. Main data types and operation in C++ programs. Controlling structures – branches, choosing a variant, cycles. Arrays and arrays of arrays, pointers, one-dimensional dynamic and multi-dimensional arrays, character strings. Functions. Recursive algorithms and recursive functions.

Teaching and assessment:

The lectures concentrate on the process of algorithm development, testing and verification and their implementation in C++. Students are given suitable examples and independent tasks to practise writing programs and develop new programs. At the practice sessions students write programs and do tests. Each student prepares a course assignment including 5 tasks and presents them to the lecturer. Students get term validation after successful submissions of all assigned tasks. The examination is in a written form, but students defend their work orally. The test marks and the course work results are taken into consideration for the final examination mark.

S01051 Mathematical Analysis I**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Stepan Agop Tersian, MSc, PhD, DSc, Department of Mathematical Analysis

tel.: 082 / 888 226, E-mail: sterzian@uni-ruse.bg**Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics**tel.: 082/ 888 587, E-mail: mkoleva@uni-ruse.bg**Abstract:**

The subject is basic for mathematical education in course of "Pedagogy of the education in Mathematics and Informatics". It is a base for further subjects as Mathematical Analysis II, Discrete Mathematics, Numerical Methods etc. The contents includes an introduction to Mathematical analysis. The syllabus contains topics as: Sets and mappings Real numbers, Basic elementary functions, Limits, Continuity of functions, Derivatives and their applications

Course content:

Basic themes: sets and mappings, sets of real numbers, basic elementary functions, limits of sequences of numbers and functions, continuity of functions, derivatives of functions and applications.

Teaching and assessment:

The educational process is realized by lectures and seminars. In the lectures the educational material is theoretically presented and demonstrated by proper example problems. In the seminars the educational material understanding is controlled and skills for solving practical problems are developed. A term certification is obtained according to Interval rules for the educational activities. The exam test includes 6 problems and/or theoretical questions from the educational material.

S01070 Geometry 1**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The subject aim is to provide students with basic knowledge in Analytic Geometry and skills to work well with different geometric objects. It is a classical field of mathematics having its own importance and at the same time is the basis for studying other mathematical disciplines as Mathematical Analysis, Differential Geometry, etc.

Course content:

Vector algebra and coordinate systems. Line equations in a plane. Line and plane equations in space. Analytic presentation of curves and surfaces. Classification and canonical equations of curves and second order surfaces.

Teaching and assessment:

The theoretical topics presented at lectures are considered at the seminars by solving problems using these topics. The individual students` work is controlled through a complex course work presented in parts on different sections. Three written tests take place. If the mark on them is equal or greater than Very good, the students receive the corresponding mark after an oral discussion on the respective syllabus section and it is not included in the exam. The exam is conducted in writing and includes problems and questions on theory. When forming the final assessment, the test results and the course work are taken into consideration.

S01947 English 1**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Mechanical and Manufacturing Engineering

Lecturers:

Senior Lecturer Pencho Konstantinov Kamburov, Department of Foreign Languages

tel: 082 / 888 816, E-mail: pkamburov@uni-ruse.bg**Abstract:**

'English Part 1' for the Pedagogy of the education in Mathematics and Informatics degree course comprises 45 practical exercise classes and provides foundation skills for oral and written communication in the foreign language in the students' field of study. Vocabulary, including basic terminology from the specialized subjects, is acquired. General topics related to the field of mathematics and informatics are considered. Skills to elicit essential information from a text and write a summary are developed. A prerequisite for 'English Part 1' is an English course taken in secondary school.

Course content:

The computer; The desktop; Using a word processor; Word processing: for and against; Storing data; Creating a folder; Saving files; The Internet; Research on the Internet; E-mail, telephones and the post; Mobile phones; Writing e-mails; E-mails addresses and servers; Sending files over the Internet.

Teaching and assessment:

The practical exercises contain the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Communicative task that require logical and analytical approach are performed. Students are given two written tests during the semester.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The term mark is based on continuous assessment.

S00074 Discrete Mathematics**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Tsetska Grigorova Rashkova, MSc, PhD, Department of Mathematics

tel.:082 / 888 489, E-mail: tsrashkova@uni-ruse.bg, tcetcka@ami.uni-ruse.bg**Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics****tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg****Abstract:**

The course is a basic one in the mathematical education for the students. It uses the knowledge given in secondary schools in linear algebra and analytic geometry.

It provides some of the fundamental notions intended for the other subjects of Informatics and the optimization theory.

Course content:

Recurrent equations, mathematical models and logical functions, finite automata, introduction to the code theory.

Teaching and assessment:

The theory in the lectures is accompanied with many examples and problems. During the tutorials the stress is on acquiring knowledge to work on one's own. Problems are given aiming to prepare the students for the next tutorials. Two written tests are done. A mark on any of them (T2 and T3) of at least 4,50 admits students to an oral discussion on the theory of the corresponding part. Thus the student could have fewer parts to prepare for the final exam or to be exempt from an exam. The exam includes solving 6 problems (computational and theoretical ones) and in order to pass the student has to solve at least 3 of them.

A course assignment is done by every student. Its successful presentation and the students' presence at all tutorials are obligatory elements for the semester validation.

S00075 Algebra**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Mathematics,
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Tsetska Grigorova Rashkova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 489, E-mail: tsrashkova@uni-ruse.bg, tcetcka@ami.uni-ruse.bgAssoc. Prof. Antoaneta Tileva Mihova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 727, E-mail: amihova@uni-ruse.bg**Abstract:**

The mathematical structures included in the course in Algebra are the main tool in a series of afterwards courses from the teaching plan.

The presented course is fundamental and obligatory for the speciality Pedagogy of the education in Mathematics and Informatics in the higher schools. It is based on Linear Algebra and gives knowledge for the courses School Course in Algebra, Number Theory and Methods in Mathematics' Education.

Course content:

Groups – types, basic properties, isomorphism. Lagrange's theorem. Normal subgroups. Quotient groups and isomorphism theorems. The basic theorem for finite Abelian groups. Rings and ideals – basic properties. Quotient rings and the isomorphism theorem. Integral domains and fields. Splitting fields. Finite fields. Polynomials in several variables. Symmetric and homogeneous symmetric polynomials. The theorem for the degree and the weight. Resultant and Discriminant. Polynomials over numerical fields. Rational roots of polynomials over the integers. The basic theorem of algebra.

Teaching and assessment:

The seminars follow the lectures and put stress on the individual student's work. A course assignment is done. Two control works are planned on the syllabus of the course. The final mark could be received before the session time. Its forming is defined in the teaching program of the course.

S01030 Geometry 2**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Mathematics,
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bgPr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics
tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The course is a basic one for the general approach in geometry – geometrical properties of the figures as an invariants of a given group of transformations. The main purpose of the teaching of the future teachers in mathematics and informatics is the development of the skill (in theory and practice) of thorough learning of the new knowledge and its application in the process of learning.

Course content:

Hilbert's axiomatics, Veil's axiomatics, geometrical transformations in the plane (movement, similarity, inversion), lines of the second degree, classical problems of the elementary geometry.

Teaching and assessment:

The theory in the lectures is accompanied with many examples and problems. During the tutorials the stress is on acquiring skills for working on one's own. Problems are given whose aim is the preparation for the next tutorials. Two tests are conducted. A mark on any of them of at least 4,50 admits students to an oral discussion on the corresponding part of the theoretical material. Thus the student could be exempted from the respective part at the final exam or from the exam as a whole and will get his/her final mark at the end of the semester. The exam-paper includes 6 problems (computational and theoretical ones) and in order to pass the student has to solve at least 3 of them. A course assignment is done by every student. Its successful presentation and the students' presence at all tutorials are obligatory elements for the semester validation.

S01076 Object-oriented Programming**ECTS credits:** 8**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng. PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Pr. Assist. Prof. Valentin Petrov Velikov, MEng. PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 326; E-mail: val@ami.uni-ruse.bg**Abstract:**

The course is a continuation of the course "Introduction to Programming". It focuses on the main concepts of object-oriented programming. The programming language C++ is studied in detail and especially the object-oriented part. Classes and objects are studied being the main categories, as well as the main concepts for working with them. The practice sessions aim at acquiring skills for developing object-oriented programs. The programs are implemented using Borland C++.

Course content:

Classes and objects. Components of classes – data members, functions' members, constructors and destructors. Objects and functions. Friends of classes. Derivatives of classes, inheritance. Streams. Pre-defined operators.

Teaching and assessment:

The lectures give the principles for development of algorithms using classes and objects, as well as their implementation in C++. They are supported with lots of exemplary programs and students have to independently modify the examples and write similar programs for training themselves in programming.

At the practice sessions students write programmes, verify them and do tests. Student's course work includes two problems for independent work that has is defended and evaluated on submission. The term is validated for students who defend successfully the course work.

Weekly classes: 2lec+0sem+0labs+3ps+1ca**Type of exam:** written**S01504 English 2****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Foreign Languages
Faculty of Mechanical and Manufacturing Engineering**Lecturers:**

Senior Lecturer Pencho Konstantinov Kamburov, Department of Foreign Languages

tel: 082 / 888 816, E-mail: pkamburov@uni-ruse.bg**Abstract:**

'English Part 2' for the Pedagogy of the education Pedagogy of the education in Mathematics and Informatics degree course extends the foreign language competence of students with respect to specialised literature and professional communication. Work is done to achieve a greater accuracy in the use of typical and common phrases, structures and grammatical models. Authentic texts are used to familiarise the learners with scientific style. Collocations integrating common terms and notions are considered.

Course content:

Viewing and downloading files; Music on the Internet; Desktop publishing; Image editing; Reviewing websites; Designing web pages; Multimedia; E-commerce; Chat rooms; Netiquette; Computer programming; Videoconferencing; Men, women and IT; Careers in IT.

Teaching and assessment:

The practical exercises contain the following components: introducing new information; summary and revision; presenting and analysing individually accomplished tasks; knowledge reinforcement through diverse exercises. Students work individually on a text, which they translate and present briefly in the foreign language. Students are given two written tests during the semester.

The term mark is based on continuous assessment. The factors that affect it are the written tests and the quality of the individual work done.

The requirements for obtaining a term validation signature are regular attendance, completing assigned tasks and doing the tests. The term mark is based on continuous assessment.

S00048 Mathematical Software**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Assoc. Prof. Yuliya Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: mkoleva@uni-ruse.bg

Assist. Prof. Magdalena Metodieva Petkova, MSc, Department of Mathematics

tel.: 082 / 888 848, E-mail: mpetkova@uni-ruse.bg**Abstract:**

The course Mathematical Software is obligatory. The main aim is to develop skills for applying different kinds of mathematical software (Mathematica, MathLab, Maple, GeoGebra) in students' learning and scientific self-work and to stimulate creative and critical thinking.

Course content:

Introduction in Mathematica, MathLab, Maple, GeoGebra. Examples from Linear Algebra, Analytic Geometry, Mathematical Analysis, School Algebra, School Geometry and School Analysis with respect to the possibilities of every kind of mathematical software. Problems for self-work.

Teaching and assessment:

The training process is realized through practical classes. Each student prepares an essay - four course papers (self-works) including particular mathematical problems. The students solve the problems via appropriate learned mathematical software, presents and defends them to the lecturers. Two practical tests take place. The final grade is based on the test and the essay results.

Weekly classes: 0lec+0sem+0labs+2ps+0.5se**Type of exam:** written**S00049 Data Structures and Programming****ECTS credits:** 8**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturer:

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel: 082 / 888 464, E-mail: kgrigorova@ami.uni-ruse.bg**Abstract:**

The course objective is to provide knowledge on complex data structures, algorithms design and maintenance, application of data structures in software development. Examples of data structures applied in practical cases for problem solving are explained to students. At first, data structures and processing algorithms are discussed conceptually and then students proceed to implement the programs in C++. The focus is placed on the algorithm complexity and program execution time. At practice sessions students have the possibility to write test programs for the algorithms presented at lectures, to modify them and create new ones. Students have to do individual assignments applying the studied data structures.

Course content:

Sorting and searching algorithms. Stack implementation and processing. Queue implementation and processing. Linear linked lists. Sorted lists. Binary searching tree. Graphs. Presentations. Algorithms and applications.

Teaching and assessment:

The lectures focus on data structures in accordance with the syllabus. The accent is placed on the methods of data structure presentation, the applied basic operations and types of problems solved with the created data structure. Program implementation is performed in C++. At practice sessions students write and test concrete practical tasks which require the application of complex data structures. The course assignment is carried out individually in two stages as homework and it is presented in a pre-set time. During the semester students do 3 tests including questions on theory and practice. The course ends with exam. The grade is formed on the basis of the results from the exam, course assignment and tests.

Weekly workload: 2lec+0sem+0lab+3ps+1ca**Type of exam:** written

S00050 Visual Programming in Office Environment**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Desislava Stoyanova Atanasova, MEng. PhD, Dept. of Informatics and Information Technologies

tel. 082 / 888 754, Email: datanasova@ami.uni-ruse.bg

Pr. Assist. Prof. Viktoria Koleva Rashkova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 214; E-mail: ykr@ami.uni-ruse.bg**Abstract:**

The course objective is students to get familiar with MS Office package and prepared for programming with Visual Basic for Application; they become able to efficiently use the applications in Office environment and develop their own applications.

Prerequisites for attending the course are students' preparation in Mathematics gained at first year and the knowledge from studying Object-oriented programming.

The knowledge and skills acquired from studying Visual Programming in Office Environment are the basis for developing course assignments, course tasks and projects and they can be successfully used for diploma projects and students' further work.

Course content:

Introduction. Office programming. Object-oriented programming. VBA and objects in Office. Data types. Macros creation and editing. Constants, variables. Integrated functions and statements. Assignment statements. Control statements. Arrays. Introducing to objects and collections. Procedures and functions. Projects and modules. Interaction design. Menu. Dialogue windows. Dialogue window elements. Events. Methods. Files management. Office applications host control.

Teaching and assessment:

The theory taught by lectures, accompanied with relevant exemplary programs, is consolidated during workshop sessions. For estimating students' involvement in the course studies students may get maximum 90 scores. Semester validation is obtained after student's regular attendance at lectures, active participation in workshop sessions, minimum 60 scores. The final assessment is formed from the test as well as student's performance during workshop sessions.

S00051 Operating Systems**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Tzvetomir Ivanov Vassilev, MEng. PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, DSc, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, E-mail: valia@ami.uni-ruse.bg**Abstract:**

The course objective is to give students knowledge and skills about the main principles of design and functioning of the operating systems. At the lectures the theoretical material is illustrated with examples from different modern OS. The workshops are based on the two most widespread OS: Windows and UNIX. Their organization and way of operation are addressed and compared.

Course content: Introduction to OS. OS classification. Structure of OS. Processes and threads. Interaction between processes. Parallel processes. Synchronisation. Solutions to classical problems. Mutual blocking. CPU management. Planning algorithms. Memory management. Virtual memory management and protection. Device management. Organization of I/O devices. File system management. Functions and structure of the file system. Multimedia OS. Distributed systems. Protection and security in OS.

Teaching and assessment: The lectures are 2 hours per week and the theoretic material is delivered at the lectures. The workshops take place in computer-equipped labs under the lecturer's supervision on topics as listed. At the workshops the students can strengthen the knowledge given at the lectures by discussing the features of particular OS and running examples. The students' knowledge is continuously assessed at the workshops with tests. The final grade is computed taking into account the continuous assessment at the workshops and the exam results.

S00052 Mathematical Analysis 2**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Prof. Stepan Agop Tersian, MSc, PhD, DSc, Department of Mathematical Analysis

tel.: 082 / 888 226, E-mail: sterzian@uni-ruse.bg**Abstract:**

The subject Mathematical Analysis – 2 is a fundamental subject among those in the basic module of the speciality Mathematics and Informatics. It is a continuation of the subject Mathematical Analysis -1. Its outgoing relations are with all mathematical subjects of the speciality.

Course content:

Basic themes: Indefinite integral, Definite Integral, Functions of two variables: differentiation, extrema Double and Triple integrals and their applications, Series of numbers and power series.

Teaching and assessment:

In the lectures a logically strong presentation of the educational material supported by examples and problems is exposed. The seminars are built up in accordance with the lectures. The current control is carried out by three test - papers and a course assignment. A term certification is given in case of regular seminars attendance. The exam is in a written form and includes 4 problems and 2 theoretical questions.

S00053 Geometry 3**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Antoaneta Tileva Mihova, MSc, PhD, Department of Mathematics

te.: 082 / 888 727, E-mail: amihova@uni-ruse.bg

Assist. Todor Petkov Mitev, MEng. Dept. Department of Mathematics

te.: 082 / 888 634; E-mail: tmitev@uni-ruse.bg**Abstract:**

The aim of the course is using the axiomatic approach to introduce students to basic concepts and statements in Solid geometry and to properties of Regular Polyhedrons, Cones, Cylinders and Spheres. The main purpose of the teaching of the future teachers in mathematics and informatics is the development of the skill (in theory and practice) of thorough learning of the new knowledge and its application in the process of learning.

Course content:

Axiomatic approach of building of the Solid Geometry, Parallelism and Perpendicularity in the space, Regular Polyhedrons, Cones, Cylinders and Sphere.

Teaching and assessment:

The educational process is realized through lectures and practical sessions. In the lectures the theoretical material is accompanied by many examples and problems. During the practice sessions the understanding of the material is controlled and skills for solving practical problems are developed. The exam-paper includes 6 problems (computational and theoretical ones).

S00054 Pedagogical Psychology**ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Stoyko Vanchev Ivanov, MA, PhD, Department of Social, Labour and Pedagogical Psychology, University of Sofia

Pr. Assist. Prof. Denitsa Aleksandrova Alpieva, PhD, Dept. of Pedagogy, Psychology and History
tel.: 082 / 888 752, E-mail: dalpieva@uni-ruse.bg**Abstract:**

The subject aims at introducing students to the psychological mechanisms and regularities of the educational activities in the educational process.

Course content:

Students will study the new functions of psychological knowledge. They will acquire the latest methods for psycho-diagnosis during game and learning activities, the ways of motivating the teaching/learning process, the psychological conditions underlying the effective educational process. Special attention is paid to the process of forming children's personality through the basic educational activities in educational process.

Teaching and assessment:

The course is taught by using a combination of lectures and seminar classes (tests, methods of psycho-diagnosis).

Weekly classes: 2lec+2sem+0labs+0ps**Type of exam:** written**S00055 Data Bases****ECTS credits:** 5**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Katalina Petrova Grigorova, MEng, PhD; Department of Informatics and Information Technologies
tel: 082 / 888 464, E-mail: kgrigorova@ami.uni-ruse.bg**Abstract:**

The purpose of this course is to familiarize students with the main principles of organising, creating and implementing of databases (DBs), database management systems (DBMS), and the information systems building. Students gain knowledge on important topics of database theory, the physical and logical organisation of DB, existing data models and the specificity of the models. The emphasis is on the relational database model.

Course content:

Main terminology in the DB theory, DBMS. Data models. Logical models. DB schema. Relational model. Relational DB schema. Relational algebra and relational calculus. Main operations with the data in the BD. Data manipulation languages. SQL. Queries. Interaction. Functional dependencies. Relational schema analysis. Normalisation and normal forms. DBMS. Operating principles. Transactions management. DB internal model. Physical organization and access methods.

Teaching and assessment:

The course comprises lectures, practice sessions and a course task. The lectures introduce important issues from DB organization, designing, building and application. The practice sessions are intended to practice students in designing individual DB and learn how to work in teams. The course task target is students to build up skills for DB designing. During the semester students do 2 tests including theory and problem solution cases. The course ends with exam. The final grade is formed on the basis of the results from the exam, the course task, the tests and student's activity during the semester.

Weekly workload: 2lec+0sem+0lab+2ps+1ca**Type of exam:** written

S00056 Computer Architectures**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Computing

Faculty of Electrical Engineering, Electronics and Automation

Lecturers:

Assoc. Prof. Milen Iliev Loukantchevsky, MEng, PhD, Department of Computing

tel.: 082 / 888 674, Email: mil@ieee.org**Abstract:**

The course addresses architectural aspects of computer systems. Main terms and principles in computer architectures are discussed as well as organisation of computations. Modern computer architectures are presented analytically and comparatively. Memory hierarchy and input-output subsystem structure are shown as well. Simulations and real systems are used at the seminars to gain deeper understanding.

Course content:

Computer architecture principles. Base components. Historical perspective. Types of computer architectures. Computer system base structure. Accumulator, stack and register architecture. Architecture IA32. Working modes. Computer memory hierarchy. Input-output system.

Teaching and assessment:

The lectures introduce main theoretical topics. Each group of lectures ends with a summary of the material and formulation of problems. At the seminars simulations and real systems are used putting lectures to practice. Each seminar begins with formulation and analysis of problems. In the end the students are asked to summarize their results in a written form. The information materials needed are given electronically to the students.

S00057 Computer Graphics and Image Processing**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies,

Faculty of Natural Sciences and Education

Lecturers:

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Rumen Ivanov Rusev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082/ 888 326, E-mail: rir@ami.uni-ruse.bg**Abstract:**

Basic principles of developing and working with interactive computer graphic systems, development of software for geometrical modeling of objects and graphical documents by using computers. Main principles and approaches of 2D and 3D objects visualisation, realistic images of spacious objects and scenes. Methods of developing graphical user interface. Image processing focuses on practically essential issues – obtaining digit images and basic processing – improving images, recovering, segmenting, recognizing, etc.

Course content:

General information about computer graphics and image processing. Vector and raster graphics. Computer graphics colour. Colour models. Peripheral devices for computer graphics and image processing. Object description in graphic systems – models. Graphic data bases. Basic geometric transformations in a plane. Approximation and modeling of plain curves – interpolation, Besie's curves, cubic splines, B-splines, basic geometric transformations in the space. 3D objects plain projections. Methods of 3D realistic image creation. Basic principles for creating computer animation. Main characteristics of digit images. Image improvement. Image recovering. Image segmentation. Image recognition and interpretation.

Teaching and assessment:

The workshops objective is students to enhance the knowledge obtained from lectures and their self study. Special attention is paid to students' independent work. They learn how to create programme modules with the methods taught and apply the specialised software in practice. The current student performance is rated with two tests evaluated using a score scale of 100. The final grade takes into consideration the continuous assessment of the students' results.

S00058 Probability and Statistics**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Evelina Ilieva Veleva, MSc, PhD, Department of Applied Mathematics and Statistics

tel. 082 / 888 606, E-mail: eveleva@uni-ruse.bg

Pr.Assist. Prof Ivan Radoslavov Georgiev, MSc, PhD, Department of Applied Mathematics and Statistics

tel. 082/ 888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The object of the Course on Probability and Statistics is to students knowledge and skills to solve problems of non-deterministic situations. Probability theory involves the infrastructure required for producing such probabilistic models, on the other hand, is the science of analyzing experimental data. The course Analysis 1 and 2 are prerequisite for Probability and Statistics.

Course content:

Random events. Probability. Conditional Probability. Random Variables. Expected Values. Specific Discrete and Continuous Distributions. Limit theorems. Multivariate distributions. Law of Large Numbers and Central Limit Theorem. Introduction to Statistics. Sampling distributions. Point and Interval Estimations. Testing Hypothesis.

Teaching and assessment:

The lectures present the material theoretically and illustrate it with appropriate example problems. At the seminars the assimilation of the material is controlled. Two control works, 2 hours each, are conducted during the semester. The control works evaluation is taken in account in the final mark of the subject. At the beginning of the semester each student is given an individual course work. It should be presented at the end of semester in a written form and is defended orally. The final assessment is done at the examination, which consists of solving problems and answering questions.

S00222 School Course in Algebra**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Mathematics,
Faculty of Natural Sciences and Education**Lectures:**

Assoc. Prof. Tsetska Grigorova Rashkova, MSc, PhD, Department of Mathematics

tel.:082 / 888 489, E-mail: trashkova@uni-ruse.bg, tcetcka@ami.uni-ruse.bg

Assoc. Prof. Milena Panova Kostova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 453, E-mail: mpk@ami.uni-ruse.bg

Assoc. Prof. Antoaneta Tileva Mihova, MSc, PhD, Department of Mathematics

te.: 082 / 888 727, E-mail: amihova@uni-ruse.bg**Abstract:**

The course is oriented to students who will work as teachers at school. In the program important concepts for school teaching are included such as a scalar and a function and the connected with them concepts of equations, inequalities and others. The practical seminars involve basic methods for solving problems from the school algebra curriculum.

Course content:

The concepts of natural, integer, rational and irrational numbers are introduced. Operations of taking a power, taking a root and taking a logarithm are included as well. Entire and fractional algebraic equations. Irrational forms. The linear function, linear equations and inequalities. The quadratic function, quadratic equations and inequalities. Entire and fractional equations and inequalities. Modular equations and inequalities.

Teaching and assessment:

In the lectures the theory is introduced by proving and is illustrated by many examples and problems. In the practical seminars skills are achieved for solving problems over the corresponding topics. Sample problems for self work are given controlled by the lecturer. A course work is prepared by the students including computational and theoretical problems. The course work has to be prepared till the last but one week of the semester. It is controlled by the lecturer. The students have to be present at all practical seminars for the validation of the semester. Three control works are made through the semester. Due to a given formula in the program the final continuous assessment is formed.

S00223 School Course in Analysis**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Yuliya Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg**Weekly classes:** 2lec+0sem+0labs+1ps+2cw**Type of exam:** written**Abstract:**

The course is basic for mathematical education in the degree programme Mathematics and Informatics. It is a basis for further training of students as teachers and subjects such as School Course on Geometry and School Course on Informatics.

The content includes an introduction to Mathematical analysis. The syllabus contains topics as limits, elementary functions, equations and inequalities, continuous functions, differential functions and applications of derivatives.

Course content:

Basic topics: sets and mappings, sets of real numbers, basic elementary functions, limits of sequences of numbers and functions, continuity of functions, derivatives of functions and their applications to extreme problems.

Teaching and learning methods:

The educational process is realised through lectures and practical sessions. In the lectures the educational material is theoretically presented and demonstrated by proper example problems. In the seminars the educational material understanding is controlled and skills for solving practical problems are developed. A semester certification is obtained according to the Internal rules of Ruse University. The exam test includes 6 problems and/or theoretical questions from the educational material.

S00772 Pedagogy**ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Pedagogy, Psychology and History

Faculty of Natural Sciences and Education

Lecturers:

Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History

tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Weekly classes:** 2lec+2sem+0labs+0ps**Type of exam:** written**Abstract:**

The course is designed to introduce students to the basic theoretical fundamentals and main practical methods for putting into practice the educational and upbringing processes in the contemporary secondary school system.

Course content:

Common problems of the pedagogical science. Basic pedagogical concepts. Theory of upbringing – principles and methods of instruction. Theory of education (didactics) – principles of education, methods of education, forms of education, problem and programmed education, differentiation and individualization of education and basic features of the teacher's profession.

Teaching and assessment:

The course is delivered in the form of lectures and seminars.

Every student is assigned an individual course assignment related to the topics discussed at the seminars. It is developed individually and its volume should exceed 10 pages.

S01096 School Course in Informatics and Information Technologies**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:Assoc. Prof. Valentina Nikolaeva Voynohovska, MEng, DSc, Dept of Informatics and Information Technologies
tel. 082/ 888 645, E-mail: valia@ami.uni-ruse.bg**Abstract:**

The course familiarizes the students with the main trends in teaching Informatics and Information Technologies in school. Certain software and hardware tools used in education are addressed. The methods and syllabus contents are put forward for discussion. The experience of Bulgarian schools is studied in details. Published textbooks, curricula and syllabi are discussed. The students study the guidelines of the Ministry of Education and Science related to the teaching of Informatics and Information Technologies.

Course contents:

Main trends in teaching Informatics in school. Methods, approaches and software for teaching Informatics. Methods and tools for introducing the terms in syllabus kernels – information and formal models, computer systems, operating systems, algorithms and data structures, programming. Use of word-processing, databases, spreadsheets, databases, test systems, consulting systems, intelligent training systems. Training computer games, simulation models, computer training environments, e-books, multimedia, telecommunications, distance learning. Integrating Informatics different subjects teaching. Lesson in Informatics. Teaching Informatics in Bulgaria.

Teaching and assessment:

The lectures are 2 hours per week. The lecture material presents the state of teaching Informatics in school and the modern trends in this field. At the seminars the students develop a course work – a topic selected by them from a syllabus of Informatics or Information technologies. They can use computers and GUI software like MS Windows, Logo for Windows, MS Access, MS Word, MS Excel, Borland Pascal 6.0, Plane Geometry system, etc. Semester validation is achieved in accordance with the Academic Rules for course attendance and course work presentation.

S01410 Component-Oriented Programming**ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:Assoc. Prof. Desislava Stoyanova Atanasova, MEng, PhD, Dept. of Informatics and Information Technologies
tel.: 082 / 888 754, Email: datanasova@ami.uni-ruse.bgPr. Assist. Prof. Valentin Petrov Velikov, MEng, PhD, Department of Informatics and Information Technologies,
tel.: 082 / 888 326, E-mail: val@ami.uni-ruse.bg**Abstract:**

The course objective is to give basic concepts, skills and knowledge on the main principles of working with component-based resources for software development based on object-oriented programming. Most of the studying process is dedicated to Java tools and practice-oriented approaches for software development. The prerequisite for this course is the knowledge of Math, Object-orientated programming, and rate of English command. Further it is closely related with courses like Software engineering, Visual programming environments and development of diploma thesis.

Course content:

Structure traits of Java and .NET Framework. Principles and similarities. Peculiarities.

J2SE. Basic packs, classes and interfaces of Java Development Kit (JDK).

Teaching and assessment:

The course includes discussible lectures, held two classes per week. The workshops aim at deepening the knowledge gained from the lectures. The course ends with exam. The final grade is formed on the basis of students' involvement in seminar classes (20%) and the exam result (80%).

S01411 School Geometry**ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The main aim of the subject is to develop students' knowledge in Geometry and Problem-solving of a wide range of geometrical problems. It is the basis for studying other mathematical subjects as Methods of instruction in mathematics, Extracurricular work in Mathematics, etc.

Course content:

Movements and equality. Figures in the plane. Vectors and vector models in the plane and in the space. Trigonometric functions of angles. Geometrical constructions. Geometry of complex numbers. Geometric transformations. Parallelism and perpendicularity in the space. Polyhedron. Cylinder. Cone. Sphere.

Teaching and assessment:

The theoretical topics presented at lectures are considered at the seminars by solving problems using these topics. The students do two tests. They develop theses that include basic theoretical and calculation school geometrical problems. The students' obligation is to defend their theses. The final grade is based on the students' tests, developing and defending the thesis results.

S02001 Ordinary Differential Equations**ECTS credits:** 5**Assessment:** Exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education.

Lecturers:

Assoc. Prof. Yuliya Vancheva Chaparova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: jchaparova@uni-ruse.bg

Pr. Assist. Prof. Ellie Petrova Kalcheva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, e-mail: ekalcheva@uni-ruse.bg**Abstract:**

The subject Ordinary differential equations (ODE) gets the students acquainted with the basic notions and methods for ordinary differential equations. The main purpose is to teach students solving and analyzing the behavior of solutions in order to promote their educational and research activities. Some of the topics are methods for solving ODEs in quadratures, existence and uniqueness theorems for initial problems, phase portrait of linear systems in the plane, stability of equilibrium points, conservative systems. The subject is based on the courses of Linear Algebra, Calculus, Mathematical Analysis.

The gained knowledge is essential for further courses such as Mechanics, Numerical methods, etc.

Course content:

Differential equations of first order, Existence and uniqueness, Linear equations and systems, Qualitative theory of differential equations

Teaching and assessment:

The educational process is realized by lectures and practical exercises. Lectures are organized to present the material theoretically and by appropriate examples. Practical exercises are orientated towards controlling students' understanding and developing skills for solving problems. A term certification is obtained according to internal rules for the educational activities. The exam test includes 5 problems and/or theoretical questions.

S02042 Methods of Teaching Mathematics**ECTS credits:**6**Assessment:** exam**Department involved:**Department of Mathematics,
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg**Abstract:**

The main aims of the course are: 1) to form fundamental knowledge about the goals, tasks and structure of the training process in Mathematics (general methods of instruction) and specific characteristics of training in some mathematical topics (specific methods of instruction); 2) to form and develop students' skills for planning and developing lessons in Mathematics.

Course content:

Historical survey of the didactic ideas for mathematical instruction in Secondary School - subject, goals and tasks. Positive and negative characteristics of the modern mathematical programs. Planning of lessons. Principles and methods. Developing of teaching materials. Mathematical content, definitions, problem solving, theorems and their application in students' training in Mathematics. Active methods of training. Methods of instruction for multimedia usage in mathematical lessons. Methods of problem-solving in different mathematical areas.

Teaching and assessment:

The teaching process is conducted through lectures, practical sessions and course assignment. The individual student assignment is to develop and present a lesson in Mathematics. The exam includes a test on the course content. The final grade is based on the course assignment and exam results.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written**S02043 Methods of Teaching Informatics and Information Technologies****ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Margarita Stefanova Teodosieva, MEng, PhD, Department of Informatics and Information Technologies

tel. 082 / 888 645, Email: mteodosieva@ami.uni-ruse.bg

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies

tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg**Abstract:**

The course objective is to familiarize the students with the didactical methods for teaching secondary school students in "Informatics" and "Information Technologies". The accent of this course is laid on the existing educational strategies and the pedagogical tasks which have to be performed in teaching Mathematics and Informatics. Students learn which are the factors effecting the syllabus grounds, subject accents and lesson structure as well.

Course content:

Nature, dynamics and trends in the development of educational methods in Informatics and Information Technologies. Main objectives of the education of Informatics and IT in the Bulgarian school. Specifics of the pedagogic tasks solved when teaching IIT. Essence and specifics of teaching Informatics and IT. Specifics of the lesson in IIT. Diagnosis of the qualities formed in the process of using computer technology.

Teaching and assessment:

The teaching process is carried out through lectures and seminars. The lectures are two hours a week. The main objective of the lectures is to familiarize students with the didactic problems arising with the inclusion of Informatics and IT within the syllabus of Bulgarian secondary schools.

Weekly workload: 2lec+0sem+0lab+2ps+1ca**Type of exam:** written

S02048 Lesson Observation in Mathematics**ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: mkoleva@uni-ruse.bg**Abstract:**

The course is especially designed for students in the seventh semester. Selected teachers in secondary schools in Ruse hold sections of lessons in the presence of students and a methodology expert from the University.

Course content:

Monitoring includes lesson observation in secondary school in different classes. According to the syllabus, definite topics, such as algebra, geometry, trigonometry and solid geometry are selected in advance. The University professor instructs the students about the topics of lesson observation.

Teaching and assessment:

The teacher in the school gives the mode, topic, purpose and tasks of the lesson. The students, after finishing the lesson, discuss with the teacher and the university professor methods, resources and skills which the teacher uses for achieving the set aims. At the end of the semester is formed continuous assessment grade on the basis of the activity and quality of participation of each student.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** practical**S02060 Lesson Observation in Informatics****ECTS credits:** 2**Assessment:** preliminary exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies

tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg**Abstract:**

The course objective is students to acquire knowledge how to conduct a lesson through observing and analyzing a teacher' performance at school. It helps to develop professional teaching abilities of future teachers in Informatics and Information Technologies.

Course content:

Students observe different lessons in Informatics and Information Technologies conducted by an appointed teacher at school. Each student has to prepare a methodical analysis after the practical observation.

Teaching and assessment:

Lesson observation is carried out under the guidance of an appointed teacher and a university lecturer. After a complete teaching program for a day (5 lessons observations) students are involved in discussion to make methodical analyses of the observed lessons. The continuous assessment is the result from the lessons analyses in correspondence with pre-set criteria.

Weekly workload: 0lec+0sem+0lab+2ps**Type of exam:** practical

S02063 Multimedia Systems and Web Design**ECTS credits:** 7**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Margarita Stefanova Teodosieva, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645 Email: mst@ami.uni-ruse.bg

Assoc. Prof. Valentina Nikolaeva Voinohovska, MEng, PhD, Dept. of Informatics and Information Technologies

tel. 082 / 888 645, Email: valia@ami.uni-ruse.bg

Assoc. Prof. Svetlozar StefanovTzankov, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645, Email: stzancov@ami.uni-ruse.bg**Abstract:**

The course objective is students to get familiar with the main components of multimedia systems, the stages and models for developing e-learning resources, languages and environments for creating multimedia applications and Web-based applications.

Course content:

Introduction to multimedia. Areas of application. Requirements, stages and technology for creating. Basic elements of multimedia. Author's systems for creating multimedia applications and systems for development and management of e-Learning courses. Animation – nature, types, purpose, elements, characteristics. Animation application in education, multimedia and web design. Models and environments for developing electronic educational resources. Web design with HTML and CSS. Development of web-based multimedia applications. Computer Based Training. Videoconferencing. Virtual reality.

Teaching and assessment:

Lectures are held 2 hours per week and the practice sessions and 3 hours per week. At the end of each section students' practical skills are evaluated. The course assignment include developing multimedia application with author's system and web based application. At the end of the semester, students' theoretical knowledge is assessed through a test. Semester validation is given for more than 50 percent-attendance at lectures and lack of unreasonable absence from workshops. The number of reasonably missed classes must not be more than 70% of the total classes despite of the causes. The course ends with continuous assessment that is formed as average from the test, the continuous assessment and the course assignment.

02064 Computer Networks and Communications**ECTS credits:** 7**Assessment:** exam**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Georgi Nikolov Krastev, MEng, PhD, Department of Computing

tel.: 082 / 888 672; E-mail: gkrastev@ecs.uni-ruse.bg

Pr. Assist. Prof. Viktoria Koleva Rashkova, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 214; E-mail: vykr@ami.uni-ruse.bg**Abstract:**

The course objective is students to be familiarized with the principles and ways of connecting computers in networks as well as with the implementation of intercommunication between different levels of connections.

Course content:

Devices and topologies used in computer networks. Networks types. Physical level in networks. Theoretical bases and media for distance data transfer. Channel communication in networks – basic characteristics. Protocols. HDLC and PPP. Ethernet channel. Routine algorithms. Data streams loading and control within a network. Network level with IP protocol. Transformation of IP and MAC addresses. Class-free addressing. Routines in IP networks. Interior protocols – RIP and OSPF. Gateway protocol BGP. Group routine. Transport level. Protocols with sockets – procedures. Transport protocols TCP and UDP. DNS and NetBIOS systems for domain names in networks. DNS and NetBIOS server and clients. Name resolving. Session level in Internet – file transfer and FTP protocol. Application level. SMTP and POP3 protocols. WEB technologies in Internet. Hypertext and HTTP protocol. Security and authenticity in networks. Symmetric and asymmetric encoding. Public key and digital signature.

Teaching and assessment:

The lectures are 2 classes per week. Each student works independently on a course assignment that is evaluated. At the end of the course students make a test covering the lecture topics. The final grade is formed as 0.7 of the exam, 0.1 of student's work during the practice sessions and 0.2 of the course assignment mark.

S02065 Current Pedagogical Practice in Mathematics**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg

Assoc. Prof. Miglena Nikolaeva Koleva, MSc, PhD, Department of Mathematics

tel.: 082 / 888 226, E-mail: mkoleva@uni-ruse.bg**Abstract:**

Pedagogical practice seeks direct involvement of students in the educational practice at school by conducting lessons in different classes of secondary school.

Course content:

Every student is conducting and watching a regular teaching process in mathematics in the 5-12 classes.

Teaching and assessment:

The current pedagogical practice is organized by mentors and a lecturer-methodologist. The students make a plan of every lesson including in it basic purposes and actual problems, teaching material and methods for education, organization of the teaching process, etc. The continuous assessment is given by the manager of the practice after a discussion with the mentor.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** practical**S02080 Current Pedagogical Practice in Informatics and Information Technologies****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Plamenka Todorova Hristova, PhD, Department of Informatics and Information Technologies

tel: 082 888 326, E-mail: phristova@ami.uni-ruse.bg

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies

tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg**Abstract:**

Pedagogical practice seeks direct involvement of students in the educational practice at school by conducting lessons in different classes of secondary school.

Course content:

Different lessons of Informatics and Information Technologies are observed.

Teaching and assessment:

The school practice is led by an educator and methodologists. The students prepare detailed plan of the lessons which they are going to present. After that they discuss them with the teacher of the class in which they are going to have a lesson, then with the methodologist and at the end with the educator. During the practice there is a methodologist and after five lessons (on the same day) conducted by different students, a discussion and methodological analysis of the lessons are conducted. The final assessment is based on the grade given by the methodologist for the student's performance.

Weekly classes: 0lec+0sem+0labs+2ps**Type of exam:** practical

S02216 Audio-visual and Information Technologies in Education**ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Margarita Stefanova Teodosieva, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645 Email: mst@ami.uni-ruse.bg

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies

tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg**Abstract:**

The course is included as compulsory subject in the 7th semester of the curriculum of speciality "Mathematics and Informatics". Its objective is to familiarize the students with the tools used for audiovisual presentations in school. Particular attention is paid to school extracurricular electronic media, computer methods and programmed education. In order to achieve good results at the time of attending this discipline, the students should have studied General Pedagogy and Didactics prior to the course.

Course content:

Traditional audiovisual technologies – common audiovisual tools and didactic materials, types and classification according to their designation, construction and form. Modern audiovisual technologies in education – computer presentations; didactic materials for illustrating the teaching process. Lesson technology. Information technologies and how to apply tests in the teaching process – principle scheme for conducting a study case. Study case technique, technique particulars, validity and reliability.

Teaching and assessment:

For the workshop session students study in advance pre-set specific problems. Each student makes a presentation at the assigned time of the workshop and gets relevant evaluation in compliance with the pre-set criteria. Students know the criteria requirements in advance. The final grade is formed on the basis of student's results during the semester and the presentation mark.

S02274 Competition Problems in Mathematics**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Mathematics
Faculty of Natural Sciences and Education**Lecturers:**

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Assist. Prof. Todor Petkov Mitev, MSc, Department of Mathematics

tel.: 082 / 888 643; E-mail: mitev@ami.uni-ruse.bg**Abstract:**

The course is devoted to the methods for solving of a wide range of competition problems from all areas of elementary mathematics. Emphasis is put on creative thinking, discovering original solutions, different problem solving strategies for hard competition problems. There different methods for creating of new competition problems, necessary conditions of competition organisation, examples from world experience are presented.

Course content:

Arithmetics, Algebra, Combinatorics, Logical Problems, Vector Algebra and Vector Models, Elements of Mathematical Analysis, Plane Geometry, Extremal Problems, Derivatives, Transformations.

Teaching and assessment:

The course consists of lectures and practice. There are two tests with competition problems given during the practice and a course work on developing information about a mathematical competition – problems, solutions, conditions for participating. The students' obligation is to defend their theses. The final grade is based on the students' results of the tests, the developing and defending the thesis and the written exam with competition problems.

S02392 Extracurricular Work in Mathematics**ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Assist. Prof. Todor Petkov Mitev, MSc, Department of Mathematics

tel.: 082 / 888 643; E-mail: mitev@ami.uni-ruse.bg**Abstract:**

The main aim of the course is to develop the students' knowledge and competencies in applying the experience and achievements of the Extracurricular Work in Mathematics in Bulgaria and abroad.

Course content:

Scientific and pedagogical principles, methods of instruction, individual work, using of appropriate references, developing of mathematical themes.

Teaching and assessment:

The material is delivered as lectures and is illustrated by examples during the seminars. There are three tests during the seminars. The final grade is based on the students' results of the tests and the written exam.

Weekly classes: 2lec+0sem+0labs+1ps+2cw**Type of exam:** written**S02436 Mathematical methods for optimization****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Applied Mathematics and Statistics

Faculty of Natural Sciences and Education

Lecturers :

Prof. Velizar Todorov Pavlov, MSc , PhD, Department of Applied Mathematics and Statistics

tel.:082 / 888-466, E- mail: vpavlov@uni-ruse.bg

Assoc. Prof. Plamen Yalamov, MSc , PhD, Department of Applied Mathematics and Statistics

tel.:082 / 888-466, E- mail: yalamov@allianz.bg**Abstract:**

The subject aim is to make students acquainted with some specific models arising in solving management problems and up-to-date mathematical and statistical methods for their solving, analyzing and interpretation of received solutions. All the discussed examples and problems have their economics applications near the practice. During the exercises demonstrations of usage of software packages for solving larger real models are provided.

Course content:

Introduction to mathematical modelling. General formulation of the linear programming problem (LPP). Working out linear programming models. Linear vector spaces. Systems of n linear equations with m unknowns (LSE). Properties of the LSE solutions. Graphic method for solving LPP. Simplex Method. Duality in linear programming. The transportation problem. Goal programming. Integer programming. Network analysis, including PERT-CPM. Elements of queuing theory. Elements of inventory theory.

Teaching and assessment:

The teaching process is realized through lectures, seminar exercises and course assignment. Topics discussed during lectures are to be illustrated and given meaning additionally through practical exercises. Special attention is paid to the opportunities of the software package MATLAB for solving more complicated and close to the practice problems.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written

S02564 Numerical methods**ECTS credits:** 6**Assessment:** exam**Department involved:**Department of Applied Mathematics and Statistics,
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Evelina Ilieva Veleva, PhD, Department of Applied Mathematics and Statistics, tel. 888 606, E-mail: eveleva@uni-ruse.bgCh.Assist. Ivan Radoslavov Georgiev, PhD, Department of Applied Mathematics and Statistics, tel. 082/888 424, E-mail: irgeorgiev@uni-ruse.bg**Abstract:**

The course introduce the students in the theory and practice of numerical methods for solution of linear systems of algebraic equations, approximation of functions, numerical integration and numerical solution of ordinary differential equations. Learning of the theory and applications is supported by the programme environment MATLAB.

Course content:

Introduction in MATLAB, Error analysis. Numerical algebra: exact and iterative methods for solving of system of algebraic equations, eigenvalues and eigenvectors. Approximation of functions. Non linear algebraic equations and optimization. Numerical integration and differentiation. Numerical solution of ODEs: Runge-Kutta methods and multi-step methods. Difference methods for boundary value problems.

Teaching and assessment:

The content of the lectures are illustrated by problem examples. In the exercises are solved problems using MATLAB. The lecturers present the material theoretically and illustrate it with appropriate example problems. The half of each lecture consists of solving problems on material of the previous lecture. At the workshops application examples are solved with the aid of the programming environment MATLAB. One course is required from every student. Two control works, 2 hours each, are conducted during the semester. The final mark is formed from written and oral exams, bearing in mind the results from the control works.

S02565 Visual Programming Environment (Delphi)**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Stoyanova Atanasova, MEng. PhD, Dept. of Informatics and Information Technologies tel. 082 / 888 754, Email: datanasova@ami.uni-ruse.bgPr. Assist. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies tel: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course focuses on the main principles of the object-oriented programming and the event-oriented programming for Windows platform. The accent is laid on designing intuitional graphical interface, using the standard visual components in Windows – buttons, menus, tool bars, text fields, etc. Students study fundamental principles for developing simple applications, MDI applications and DB applications.

Course content:

Object-oriented programming and the event-oriented programming without instrumental device. Programming for Windows in Visual programming environment. Delphi and Object Pascal. Object-oriented programming in Delphi. Program techniques with VCL. Methods of classes, indicators to methods, and pseudonyms of classes. The class T-object. Usage of components – standard, extensional, Win32, system, etc. Graphics, drawing, and bitmat images. Tool bars, and user interface elements. Dialog windows and multiple page forms. Developing applications with DBs.

Teaching and assessment:

The accent is laid on the visual programming environment Delphi, Object Pascal language, visual components, etc. The course assignment is fulfilled as a home task by the end of the semester. The continuous assessment is made through students' involvement in the workshop sessions and a test-paper in the 14th week of the semester. Semester validation is given for not less than 50% attendance of the lectures and presence at all workshops. The course ends with continuous assessment mark formed on the basis of the current tests (CT), coursework (cw) and the Test paper (T) following the formula $CA = 0,2*CT + 0,3*T + 0,5*cw$.

S02566 Visual Programming Environment (VC++)**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Tzvetomir Ivanov Vassilev, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 475, E-mail: tvassilev@ami.uni-ruse.bg

Assoc. Prof. Desislava Tsoneva Baeva, MEng, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 214, E-mail: dbaeva@ami.uni-ruse.bg**Abstract:**

The course objective is students to gain knowledge and skills on fundamental principles for operating with component-based resources in visual programming environment. The focus is placed on .NET Framework using the current version of C++ or C#. Starting the course students get general information about the technological aspects of .NET Framework. The access is laid on .NET Framework tools and on the practice-oriented approaches for program implementation. Prerequisites for attending the course are the knowledge and skills acquired from learning Mathematics, Object-oriented Programming, Resource-based programming and the English language command. The knowledge and skills gained from studying VC are further important for the State exam or Diploma thesis as well as the future career of the graduates.

Course content:

Component-orientated program development based on Microsoft technology. Basics of the .NET Framework and NET Framework 2 platform. Architecture of the neuro-web. One , two and multi-tier models. Criteria for choosing the right model. Two-tier architecture example. Architecture of the .NET Framework platform - operating system. Resources, processes ant services. Standard library- Framework Class Library of .NET Framework. FCL packets.

Teaching and assessment:

Lectures are 2 hours per week. The theory is given through the lecture material. The workshop sessions are held in computer labs under the supervision of the lecturer following the topics listed in the Course content. The course assignment is fulfilled as a home task by the end of the semester. The discipline ends with a continuous assessment mark. The latter is formed on the basis of the programs performance implemented by each students taking into consideration the complexity and the rate of difficulty of the tasks, and also the test-paper results. The test-paper contains questions from theory and practical issues raised at the workshops.

S02567 Desktop Publishing**ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**

Prof. Margarita Stefanova Teodosieva, PhD, Department of Informatics and Information Technologies, tel.

888 490, 888 645, Email: mst@ami.uni-ruse.bg

Assoc. Prof. Valentina Nikolaeva Voinohovska, PhD, Department of Informatics and Information Technologies,

tel. 888 645, Email: valia@ami.uni-ruse.bg**Abstract:**

The course familiarises the students with the bases of computer preparation of texts and illustration materials for polygraph reproduction. Attention is paid on main requirements to initial materials, main functions and methods of text processing, formatting and treatment of colour graphic materials, and their realisation through contemporary computer systems.

Course content:

Introduction to Desktop publishing systems. Main concepts. Print Production. Typography. Images. Color. Basic principles of design. Basic design elements. Prepress. Resolution. Scanning. Creative techniques. Imposition. Proofing. Preparing files for a commercial press. Printing. Printing processes. Printers. Paper types. Finishing. Binding. Laminates. Varnishes. Folding. Trimming.

Learning and assessment:

The course comprises lectures and practice sessions. The main material is taught at the lectures. Lots of examples about application of theory in practice are also discussed. At the practice sessions students prepare an exemplary publication. The final mark is formed mainly from tests and work through the term.

S02568 Computer Modeling**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Velina Stoyanova Bozduganova, MSc, PhD, Department of Engineering Mechanics
tel.082 / 888 572, E-mail: velina@uni-ruse.bg**Abstract:**

The principles and the methods of computational technology of research are studied here, which are combination of mathematical modeling and numerical experiments. The main stages of mathematical model development and numerical experiments and investigation are considered using classic physical examples with clear meaning. Some opportunities of modeling dynamical systems, phenomena, and processes into MATLAB® software environment are emphasized. Special attention is paid in solving concrete modeling problems.

Course contents:

Computer modeling. Discrete Newtonian Mechanics. Models of cycle processes. Modeling the macro-particle motion in resisting environment. Planetary motion modeling. Models in mathematical biology and psychology. Economic models. Optimization models.

Teaching and assessment:

The course is taught by conducting lectures and practical exercises in a computer lab, using the software MATLAB®. The students are consulted for their individual assessments of the Course work. The written report of the Course work is defended and graded after its submission and this is the final grade of the course.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written**S02569 Competition Problems in Informatics****ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education**Lecturers:**Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies
tel.: 082 / 888 464, 888 326, E-mail: katya@ami.uni-ruse.bgAssoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies
tel: 082 / 888 326, E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The course objectives are students to be familiarized with the main principles of developing and solving competition problems in Informatics and to learn how to organize and conduct Informatics competitions. The course focuses on themes needed for the development of competition problems and also on data structures and algorithms, which are most widely applied in solving such problems. Special attention is paid on the issue concerning algorithms complexity used in problem solving.

Course content:

Recursion and recursive algorithms. Recursive data structures and applications. Graphs and applications. Numerical series and sequences. Combinatorics algorithms. Expressions – representation, modifications and calculation. Sets. Representation and operations. Geometrical algorithms.

Teaching and assessment:

The course includes lectures, workshop sessions and a course assignment. The lectures introduce the students to the main structures, methods of representation and algorithms applied for competition problems. During the workshops students solve various typical competition problems. Students have to complete two tests on theory and practical cases at the time of the course. The course ends with current assessment that is formed on the basis of the test results and the course assignment mark.

Weekly classes: 2lec+0sem+0labs+2ps+1ca**Type of exam:** written

S02570 Extracurricular Work in Informatics**ECTS credits:** 6**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Katalina Petrova Grigorova, MEng, PhD, Department of Informatics and Information Technologies

tel.: 082 / 888 464, 888 326, E-mail: katya@ami.uni-ruse.bg

Assoc. Prof. Plamenka Todorova Hristova, MEng, PhD, Dept. of Informatics and Information Technologies

tel: 082 / 888 326, E-mail: phristova@ami.uni-ruse.bg**Abstract:**

The course "Extracurricular studies in Informatics" (ECSI) familiarizes students with the basic requirements for teaching Informatics and Information Technologies as an optional subject at school. Students learn the targets, tasks, methodical and organizational principles of the discipline ECSI. Special attention is paid on the main topics of the ECSI, the peculiarities of teaching ECSI in the primary, secondary and high schools and its dependence on the available computer equipment there. Students develop sample syllabus for teaching Informatics and Information Technologies as an optional subject at school. For the ECSI course students need to have attended all courses in Informatics beforehand. The knowledge gained from the ECSI course is helpful for all next eligible courses of the curriculum.

Course content:

Targets and tasks of the ECSI. Experience obtained in Bulgaria and in other countries. Requirements to the syllabus of Informatics and Information Technology taught as an optional subject at school. Themes of ECSI course. Type approved syllabuses for teaching IIT as an optional subject at school: operating systems, text processing, data spreadsheets, data bases, computer graphics, and graphical user interface. Type approved syllabus for teaching Programming as an optional subject. How to introduce the main control structures (branches, cycle, procedures, functions, recursion) and the main data structures (static and dynamic variables, arrays, lists, tree, stack, queue, etc.)

Teaching and assessment:

The course includes lectures and workshops. The theoretical material is presented by the lectures. During the workshop sessions students solve problems related to theory and design syllabuses involving sample themes for teaching Informatics as an optional subject.

Students do 2 tests during the workshop classes. The final grade is formed as 70% of the average mark from the two tests + 30% of the course assignment mark.

S02571 Number Theory**ECTS credits:** 5**Assessment:** exam**Departments involved :**

Department of Mathematics,

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Tsetska Grigorova Rashkova, MSc, PhD, Department of Mathematics

tel.:082 / 888 489, E-mail: trashkova@uni-ruse.bg, tcetcka@ami.uni-ruse.bg

Pr Assist. Prof. Tihomir Bogomilov Giulov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 489, E-mail: tgulov@uni-ruse.bg**Abstract:**

The discipline is typical for the professional qualification of future teachers in mathematics and informatics. The program includes topics for extracurricular activities and mathematical competitions. The discipline is based on the courses in Linear algebra, Algebra, School course in algebra and enriches the mathematical competences of the future teachers in mathematics

Course content:

Divisibility of integers, GCD and LCM. Prime integers. Fundamental theorem of arithmetics. Congruences. Fermat and Euler theorems and their applications. Congruences with one unknown. Systems of first degree congruences. Congruences of arbitrary degree. Congruences of second degree modulo a prime number. Gauss law of reciprocity of quadratic remainders. Representation of integers as a sum o of integers. Primitive roots and indices. Chain fractions. Diophantine first degree equations with two unknowns. Diophantine higher degree equations. Pell's equation.

Teaching and assessment:

The practical tutorials follow the lectures thematically. It is stressed on the individual work, solutions are considered using suitable software. Two one-hour control works take place. The exam includes 3 computational problems and 1 theoretical one. A course assessment is done which is an obligatory one for the semester certifying. The forming of the final mark is defined in the teaching program.

S02572 Pre-Diploma Pedagogical Practice in Mathematics**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Mathematics

Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics

tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Pr. Assist. Prof.. Ralitsa Krasimirova Vasileva-Ivanova, MSc, PhD, Department of Mathematics

tel.: 082/ 888 848, E-mail: rivanova@uni-ruse.bg

Assist. Prof. Magdalena Metodieva Petkova, MSc, Department of Mathematics

tel.:082 / 888 848, E-mail: mpetkova@uni-ruse.bg**Abstract:**

The purpose of the course is to ensure conditions for the students to conduct a real teaching process in mathematics in a given form of a given school. Every student conducts regular teaching lessons in mathematics for pupils in any form (5-12) forms according to the teaching program of the teacher-adviser.

Course content:

At the schools students give lessons and take part in the organisation and implementation of extracurricular activities.

Teaching and Assessment:

The pedagogical practice in mathematics is conducted in a leading school in Ruse. The manager of the practice realizes the continuous control being at the lessons performed by the students. At the end of the semester the continuous assessment takes into consideration the level of development the skills and the competencies for a qualified teaching process in mathematics done by every student. The marks are coordinated with the students' mentors.

S02573 Pre-Diploma Pedagogical Practice in Informatics**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Informatics and Information Technologies

Faculty of Natural Sciences and Education

Lecturers:

Prof. Margarita Stefanova Teodosieva, MEng, PhD, Dept. of Informatics and Information Technologies

tel.: 082 / 888 645 Email: mst@ami.uni-ruse.bg

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies

tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg**Abstract:**

The goal of pre-diploma pedagogical practice (PDPI) is a month-long participation of the students in the teaching process at secondary and primary schools by conducting situations and lessons. PDPI gives opportunity to the students to apply practically their theoretical knowledge acquired through the whole training course and to develop skills for students' training in the field of study.

Course contents:

At the school's students give lessons and take part in the organization and implementation of extracurricular activities.

Teaching and Assessment:

The pedagogical practice is organized by the lecturer according to a previously drawn up schedule for schools. The lecturers of Methods of Instruction in Mathematics visit the students, observe and assess lessons conducted by them, and fill in the students' portfolios. The final grade is formed as an arithmetic mean of the grades of the all observing specialists.

S02575 School Hygiene and Health Education**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Desislava Vasileva Stoyanova, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: dstoyanova@uni-ruse.bg**Abstract:**

The aim of the course in School Hygiene and Health Education is to introduce students to the contemporary tendencies and advances in the study of the human health and health education in school.

Course content:

The course examines such topics as subject matter and methods of study of Health Education; historical survey. Special attention is drawn to the global and regional problems in the result of the pollution. Ecology and school. Physical development and activity. The most common diseases in early age.

Teaching and assessment:

The course is taught through lectures. Lectures are designed to introduce students to new ideas and to provide a model for further analysis.

The theoretical assignment are intended in order students to learn how to prevent children's diseases caused by poor hygiene.

S02576 Pedagogical Communication**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

The basic objectives and tasks of the research seminar are directed towards providing students with basic notions about the democratisation and humanising of the pedagogical process, which presupposes an active pedagogical interaction between teachers and pupils and the creation of a sense of equality between them. Hence, the future teachers should become aware of the elements of the pedagogical communication and acquire knowledge and skills for a meaningful and effective interaction with the children.

Course content:

Social nature of communication; Communication as a factor for the development of one's personality; Essence and dimensions of communication; Interactive nature of communication; Functions of communication in the process of education; Basic types of conversation; Organization and management of interaction between children; Special features of the verbal and nonverbal communication of teachers; Features of the interaction between children at the pre-school and primary-school age.

Teaching and assessment:

The seminar has a practical and research orientation that underlies the structure of the lectures and the exam procedure. Students are acquainted with multiple examples and facts from the school practice and the work of notable researchers from Bulgaria and the world.

S02577 Pedagogical Diagnostics**ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Asya Simeonova Veleva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 268, E-mail: aveleva@uni-ruse.bg**Abstract:**

The course aims at development student's skills for planning, organization and skills for empiric research, as well as skills for analysis and presentation of results.

Course content:

History of diagnostics. Basic principles and terms of pedagogical research. Nature and structure of diagnostic process. Presentation and analysis of the result of empiric pedagogical research. Methods of pedagogical research.

Teaching and assessment:

Basic methods of teaching are: informational – explanatory, illustrative and problematic presentation, as in the front row it is being led the scientific logic of knowledge. The final control is test.

Weekly workload: 2lec+0sem+0lab+0ps**Type of exam:**written**S02578 Problems of Deviant Behaviour****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Julia Georgieva Doncheva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 219, E-mail: jdoncheva@uni-ruse.bg**Abstract:**

The elective course aims to prepare students for the required section Etopediyata complex as science. Namely, human behaviour the norm and variance associated with the main types of deviant - socially inadequate, socially immature behavior

Course content:

Different forms of deviant behavior and the fundamental principles of both preventive and corrective of (resocialization) effects on deviant personality.

Upon completion of the course, students develop procedural skills needed for preventive interactions with persons with antisocial behavior.

The final grade is formed by a current assessment covering all material studied. The evaluation is based on results of the visit and participation during lectures.

Teaching and assessment:

The teaching takes place through lectures. The lectures using interactive methods and tools meltmediyni presentations, graphs, models, and drafting and completing testing and training films. The current control is done by recording the visit of students and their active participation during lectures and discussions on current discussions and interactive forms.

S02579 School Legislation**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg**Abstract:**

Students become familiar with the origins, development and contemporary aspects of school law and develop skills for working with legal documents.

Course content:

To gain knowledge about the nature, content and technology specifics of school law.

Teaching and assessment:

During the course of lectures students are introduced to the theoretical and practical background of school law. The topics of lectures are presented orally in a systematic way and methods like: discussion, analysis of problems and problem learning are used among others.

Weekly workload: 2lec+0sem+0lab+0ps**Type of exam:**written**S02580 Administration and Economics in Education****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg**Abstract:**

Students become familiar with the origins, development and contemporary aspects of school law. To know the purpose and operation of the system administration and school management, and also to clarify for themselves the parameters and possible alternatives to the economy as a non-profit school.

Course content:

To gain knowledge about the nature, content and technology specifics of school management and administration. To gain awareness of the economic priorities at school, as well as knowledge for the administration of school finances.

Teaching and assessment:

During the course of lectures students are introduced to the theoretical and practical background of school law. The topics of lectures are presented orally in a systematic way and methods like: discussion, analysis of problems and problem learning are used among others.

Weekly workload: 2lec+0sem+0lab+0ps**Type of exam:**written

S02581 Educational Sociology**ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Pr. Assist. Prof. Valentina Nikolova Vasileva, MA, PhD, Department of Pedagogy Psychology and History
tel.: 082 / 888 268, E-mail: vvasileva@uni-ruse.bg**Abstract:**

Course in educational sociology aims to familiarize students with a practical integrative science oriented for educational activity and modern processes and phenomena that occur in education, with particular attention to the education and socialization of children. Hence, the functional plan teaching sociology affects the real process of education and upbringing. Thus, the course has a role and purpose in preparing future teachers for Secondary School.

Course content:

The course is designed according to the requirements of a professional teacher in the area Pedagogical Sciences. There are certain topics that are a natural extension of the traditional course in pedagogy / education theory and didactics /. At the same time it focuses on the content and meaning of interpersonal interactions in the system of education and upbringing, to the structure and mechanisms of social and individual relationships with emphasis on the pedagogical reality.

Teaching and assessment:

Training is done through lecture form of teaching. The lecture teaching and using multimedia, visual and didactic materials and tests. Interactive methods are used to analyze teaching situations occurring in the educational process. The shape of the current control is filling the test.

Weekly workload: 2lec+0sem+0lab+0ps**Type of exam:**written**S02582 Ethics****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**Department of Pedagogy, Psychology and History
Faculty of Natural Sciences and Education**Lecturers:**Assoc. Prof. Sonya Georgieva Georgieva, MA, PhD, Department of Pedagogy, Psychology and History
tel.: 082 / 888 544, E-mail: sonya@uni-ruse.bg**Abstract:**

Ethics is based on the general- philosophical knowledge and reflects the peculiarity work practice its subject of study being both the object and the subject of labour. The course aims to: present th system of knowledge related to the main philosophic and ethical categories and to show their practical significance. To form skills for developing of a better professional environment. To provide students with alternatives for self-knowledge and professional development.

Course content:

Origin of the Morals; Object and tasks of the ethical science; Apparatus of categories; Moral and ethical issues in education.The relationship between the social educatoe and the factors taking influence over the upbringing and education of the children. There are also new categories and concepts imposed by social life.

Teaching and assessment:

The course is taught by lectures and seminary trainings . Students are expected to do additional reading on the presented topics during the third studing week.. The course employs such teaching methods like games and discussions. Coursework in the forms of written assignment is also envisaged.

Weekly workload: 2lec+0sem+0lab+0ps**Type of exam:**written

S02583 State Practice-applied Exam in Mathematics, Informatics and Information Technologies

ECTS credits: 2
Assessment: exam

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

S02584 State Exam in Mathematics

ECTS credits: 4
Assessment: exam
Department involved:

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

Department of Mathematics
Faculty of Natural Sciences and Education

Lecturers:

Assoc. Prof. Emiliya Angelova Velikova, MSc, PhD, Department of Mathematics
tel.: 082 / 888 848, E-mail: emily@ami.uni-ruse.bg

Assoc. Prof. Yurii Dimitrov Kandilarov, MSc, PhD, Department of Mathematics

tel.: 082 / 888 634, E-mail: ukandilarov@uni-ruse.bg

Abstract:

The main aim is for students to apply practically their theoretical knowledge in real classroom situations.

Course content:

In chosen basic schools the students teach different subjects of mathematics in classes or perform extracurricular activity instruction.

Teaching and assessment:

After the finishing of the classes the final grade is awarded by the Chairman of the State Examination Commission in accordance with the four grades given by the observing specialists of Mathematics, Education and Psychology, and the result from the student teaching performance on the subject.

S02585 State Exam in Informatics and Information Technologies

ECTS credits: 4
Assessment: exam

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

Department involved:

Department of Informatics and Information Technologies
Faculty of Natural Sciences and Education

Lecturers:

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies
tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg

Abstract:

The main aim is the students to apply practically their theoretical knowledge in a real class situation.

Course content:

In chosen basic schools the students teach different subjects of mathematics in classes or perform extracurricular activity instruction.

Teaching and assessment:

After the finishing of the classes the final grade is awarded by the Chairman of the State Examination Commission in accordance with the four grades given by the observing specialists of Mathematics, Education and Psychology, and the result from the student teaching performance on the subject.

S02586 State Practice applied Exam in Mathematics, Informatics and Information Technologies

ECTS credits: 2
Assessment: exam

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

S02589 Written State Exam in Mathematics

ECTS credits: 4
Assessment: exam
Department involved:
 Department of Mathematics
 Faculty of Natural Sciences and Education

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: written

Consultants:

All lecturers from the Dept. of Mathematics and Department of Informatics and Information Technologies.

Abstract:

The state exam is held before the State Examination Board in accordance with the approved syllabus which includes main topics of Methods of Teaching Mathematics, Informatics and Information Technologies.

Course content:

The Written State Exam includes all main subjects of Methods of Teaching Mathematics, Informatics and Information Technologies.

Teaching and assessment:

The senior students present the Written State Exam in front of the State Examination Board.

S02590 Bachelor Thesis in Informatics and Information Technologies

ECTS credits: 6
Assessment: defence
Department involved:
 Department of Informatics and Information Technologies
 Faculty of Natural Sciences and Education

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: written

Consultants:

All lecturers from the Department of Informatics and Information Technologies and experts in the fields of Informatics.

Abstract:

The Bachelor Thesis gives the chance to the students who graduate to show their abilities to design and implement a substantial project in the area of Informatics, to demonstrate independent work, initiative abilities and professional competence.

The Bachelor Thesis is an independent assignment, which is fulfilled under the leadership of a research lecturer and, if necessary, under the leadership of a research consultant. Its objective is to give the possibility to the students to demonstrate the knowledge and skills accumulated during their study for achieving the objectives and tasks of the Bachelor Thesis and to present their creative development successfully in front of State Examination Board.

Course content:

The Bachelor Thesis contains: an explanatory note including a description of the conceptions referred to by the bachelor thesis, as well as the existing solutions, analyses, calculations, explanations, conclusions, list of references and the diploma project itself.

The Bachelor Thesis develops topics in Informatics and Information Technologies or in Methods of Teaching Informatics and Information Technologies.

Teaching and assessment:

The Department of Informatics and Information Technologies provides the organisation related to collecting, confirming and announcing of topic suggestions for Bachelor Theses. They distribute the topics and research leaders among senior students and provide leadership in the development review and presentation of the Bachelor Thesis. Weekly tutorials with the research leaders are scheduled to monitor students' work. Students present, defend and demonstrate the Bachelor Thesis before the State Examination Board.

S02591 State Practice-applied Exam in Mathematics, Informatics and Information Technologies

ECTS credits: 2
Assessment: exam

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

S02592 Written State Exam in Informatics and Information Technologies

ECTS credits: 2
Assessment: exam

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: practical

Department involved:

Department of Informatics and Information Technologies
 Faculty of Natural Sciences and Education

Lecturers:

Assist. Prof. Julia Velikova Krasteva, Department of Informatics and Information Technologies
 tel. 082 / 888 470, Email: bulg@ami.uni-ruse.bg

Abstract:

The main aim is the students to apply practically their theoretical knowledge in a real class situation.

Course content:

In chosen basic schools the students teach different subjects of mathematics in classes or perform extracurricular activity instruction.

Teaching and assessment:

After the finishing of the classes the final grade is awarded by the Chairman of the State Examination Commission in accordance with the four grades given by the observing specialists of Mathematics, Education and Psychology, and the result from the student teaching performance on the subject.

S02593 Bachelor Thesis in Mathematics

ECTS credits: 6
Assessment: defence

Weekly workload: 0lec+0sem+0lab+0ps
Type of exam: oral

Department involved:

Department of Mathematics
 Faculty of Natural Sciences and Education

Consultants:

All lecturers from the Department of Mathematics and Applied Mathematics and Statistics,

Abstract:

The Bachelor Thesis gives the chance to the students who graduate to show their abilities to design and implement a substantial project in some area of Mathematics; to demonstrate independent work, initiative abilities and professional competence.

The Bachelor Thesis is an independent assignment, which is fulfilled under the leadership of a research lecturer and, if necessary, under the leadership of a research consultant. Its objective is to give the possibility to the students to demonstrate the knowledge and skills accumulated during their study for achieving the objectives and tasks of the Bachelor Thesis and to present their creative development successfully in front of State Examination Board.

Course content:

The Bachelor Thesis contains: an explanatory note including a description of the conceptions referred to by the bachelor thesis, as well as the existing solutions, analyses, calculations, explanations, conclusions, list of references and the diploma project itself.

The Bachelor Thesis develops topics in Mathematics or in Methods of Teaching Mathematics.

Teaching and assessment:

The Department of Mathematics provides the organisation related to collecting, confirming and announcing of topic suggestions for Bachelor Theses. They distribute the topics and research leaders among senior students and provide leadership in the development review and presentation of the Bachelor Thesis. Weekly tutorials with the research leaders are scheduled to monitor students' work. Students present, defend and demonstrate the Bachelor Thesis before the State Examination Board.