# Professional standards of the Bachelor in Industrial management

Educaion degree: **Bachelor**, Professional qualification: **Engeneer-manager** Period of training: **4 years (8 semseters)** 

The overall purpose of the training is to prepare highly qualified experts capable to plan, motivate, organize and lead the processes in production according to the requirement of the dynamic and global market economy, the limited natural resource, the increasing competition and the necessity of quick restructuring of the Bulgarian economy.

The interdisciplinary approach of the training providing a combination of engeneering and management knowledge and skills, the deep knowledge of foreign languages, the fluent work with contemporary information technologies and the possibilities for specialization make Industrial management a very attractive and demanded specialty for the needs of the small and middle entrerpizes.

# **Possibilites for work**

The bachelors in Indusrial Management can work as managers of companies or experts in the area of: production management, logistics, sales, marketing, aftersales service and quality of energy effective productions, the human resources management, in consultant companies, in the credit departments of banks, in insurance companies.

# **Educational training:**

The bachelors in Indusrial Management gain knowledge in the following groups of subjects:

- Fundamental for the specialty Higher mathematics, Quantaitative methods and Statistics; Information systems and technologies; Law; Foreign language and a discipline from the area of Social science.
- **Engeneering** Physics; Chemistry; Electrotechnics and Electronics; Knowledge in materials; Mechanics of naterials; Engeneering graphics; Industrial production technologies and systems.
- Economic and management Economics, Economiy of companies, Accounting, Finance, Management, Marketing, Corporate pllanning; Management information systems; Business games.

• **Special** – Industrial engeneering, Innovation management, Production and Operations management, Project management, Metrology and Quality management, Sustainable regional development, Robotics and transport-storage technique.

# Common and special competences:

The Bachelors in Industrial Management gain knowledge and skills for developing, managing and approving the basic systems and processes, running in the industrial companies as: planning and forecasting activity, elaboration and management of projects, organizing and management of production of goods and services, Leading business negotiations, Construction of effective management structures and technologies, Organizing and motivating the personnel for reaching the company's objectives.

More concretely they have the possibility to specialize in some of the following:

- Management of the production resources, including management of the suppliers' chains and the stock, management of the material resources, reengineering.
- Human resources management Oranizational behavior, Business communications and correspondence, Public relations, Managerial tactics
- Management of energy effective productions energy effective sources and technologies, Ecological industrial production.

# CURRICULUM of the degree course in INDUSTRIAL MANAGEMENT (active from July.2013)

	Year One				
Code	First semester	ECTS	Code	Second semester	ECTS
1808	Materials science	6	1813	Mechanics	6
1636	Chemistry	4	1623	Physics	6
1646	Basics of Law and Trade law	3	2316	Information systems and technologies part I	4
1557	Mathematics	6	1688	Economics	5
			1809	Engeneering graphics	6
	Electives (one is to be elected)				
3475	Sociology	4			
0065	Economic history	4			
1806	Politology	4			
	Electives (one is to be elected)			Electives (one is to be elected)	
1692	English language	7	2086	English language in business part l	3
1732	German	7	2087	German language in business part I	3
1740	French	7	2099	French language in business part l	3
	Total for the semester:	30		Total for the semester:	30

	Year Two				
Code	Third semester	ECTS	Code	Fourth semester	ECTS
1970	Qantitative methods and Statistics	6	1975	Electrotechnics and Electronics	5
1978	Information systems and technologies part II	5	1977	Technological processes in industry	5
1986	Accounting of the company	6	2005	Management information systems	5
1987	Basics of management	6	2006	Finance Organizational behaviour	5 5
	Electives (one is to be elected)				
2170	Open code operational systems	5			
	Opreations management	5			
2146	Contemporary computer technologies	5			
	Electives (one is to be elected)			Electives (one is to be elected)	
1930	English language in business part II	2		E-Business	5
1966	German language in business part II	2		Insurance	5
1968	French language in business part II	2	2254	Products policy	5
	Total for the semester:	30		Total for the semester:	30

	Year Three				
Code	Fifth semester	ECTS	Code	Sixth semester	ECTS
2018	Industrial engeneering	6	2009	Production management	6
2002	Contemporary production systems	5	2145	Management of the suppliers chains	6
2134	Labour and insurance law	3	2021	Logistic technological systems	6
1815	Economic of the company	5		Systems for management control	4
2026	marketing	6	2010	Sustainable regional development	4
	Corporative social responsibility	5	2245	Energy effective sources and technologies	4
	Total for the semester:	30		Total for the semester:	30

	Year Four				
Code	Seventh semester	ECTS	Code	Eight semester	ECTS
2133	Metrology and quality management	5	2324	Business games	10
2014	Public relations	3		Information systems in the industrial production	6
2244	Innovation management	6			
2251	Project management	6	2358	Self-preparation for graduation *	4
2250	Human resources management	5			
	Management of industrial processes - course project	2		Practics not included in the semseter	
			2359	Post-semester Practice (2 weeks)	2
	Electives (one is to be elected)			Начин на дипломиране	
2022	Management of the service-dealer activity	3	2411	Diploma thesis (over 4.50)	10
2032	Thermotechnics	3			
	Total for the semester:	30		Total for the semester:	30
				Total for the course of study:	240

#### **1808 Material science**

 ECTS credits: 6
 Weekly workload: 2 I + 0 s + 2lab + 0 p + 0 c.a.

 Assessment: exam
 Type of exam: written

 Departments involved: Department of Materials and manufacturing engineering,

Faculty of Mechanical and manufacturing engineering

#### Lecturers:

Prof. Rusko Ivanov Shishkov, MSc (Eng), DTSc, PhD, Dept. of M&ME, tel. 888 204, E-mail: <u>rish@uni-ruse.bg</u> Assoc.Prof. Diana Vasileva Tzaneva, MSc (Chem.), PhD, Dept. of M&ME,tel. 888 307, E-mail: dvc@uni-ruse.bg

#### Abstract:

This subject studies the composition, structure and property connections in materials, which are used both in techniques and daily life, as well as the opportunities, granted to change and redirect these properties in a certain way. Basic knowledge on physics and chemistry is needed. Students acquire useful knowledge and experience, which can be applied in other subjects having in common with material processing or new product construction.

#### Course content:

Main notions on the structure and properties of metal, non metal and composite materials. Structure analyzing methods. One-, two-, and multi-component systems. Balance equilibrium diagrams of conditions. Regularity of crystallization and transformations in solid state condition - mechanisms and kinetics. Metastable conditions. Iron, steel and cast iron, copper, titanium, aluminum and their alloys. Other kinds of metal material. Ceramics and metal ceramics. Polymer materials. Composite materials.

#### Teaching and assessment:

Theoretical knowledge taught at lectures is assimilated, specified and improved during the laboratory classes. They concern mainly the material structure and the thermal methods of its change. Three tests are appointed during the semester. The test results are reflected in the exam's assessment.

# 1636 Chemistry

# ECTS credits: 4 Weekly workload: 2 L + 0 S + 1Lab + R

Assessment: exam

Type of exam: oral

**Department involved:** Department of Repair, Reliability and Chemical Technologies, Agro-Industrial Faculty Lecturer:

Assoc. Prof. Petar Vassilev Kopchev, PhD, Department of Repair, Reliability and Chemical Technologies, phone: 888/ 228, 459, <u>pkopchev@uni-ruse.bg</u>

#### Abstract:

The course helps student form basic notions about the structure of materials and substances, the properties of metals and alloys, corrosion, electrochemical phenomena and processes and their application in technology. **Course content:** 

Structure of substances; Metals and alloys; Corrosion and corrosion prevention; Electrochemistry. **Teaching and Assessment:** 

The material presented at lectures is exemplified and clarified during laboratory classes; the aim is to provide students with a hand-on laboratory experience on the covered topics. At the beginning of the laboratory class the students, divided into groups of four, are acquainted with the objectives of the exercise and the methodology of teaching and practicing. The lecturer assists students with their work and helps them summarize the achieved results. Students have to keep a diary about the tasks performed during laboratories; they are expected to enter the achieved and summarized results regularly and in accordance with the requirements. Assessment is formed after the oral examination passed in during the session.

#### 1557 Mathematics

#### ECTS credits: 6

Assessment: exam

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

# **Departments involved:** Department of Algebra and Geometry Faculty of Natural Sciences and Education Lecturers:

Assoc. Prof. Yuriy Dimitrov Kandilarov, MSc, PhD, Dept. of Algebra and Geometry,

Phone 082 888 634, E-mail: tpeter@ami.uni-ruse.bg

Pr. Assist. Prof. Tihomir Bogomilov Gyulov, MSc, PhD, Dept. of Algebra and Geometry,

phone 082 888 489, E-mail: tgulov@uni-ruse.bg

### Abstract:

The subject helps students to form basic notions about mathematical methods necessary to create models of economic phenomena and engineering problems. The subject lays the foundations for further studies of Physics, Mechanics and other courses. A wide range of applications in economics is covered.

#### Course content:

Matrices. Determinants. Matrix equations. Leontiev's model. Systems of linear equations. Gaus' method. Sequences and series. Simple and compound interest. Discount. Annuity. Differential calculus and applications. Elasticity of demand and supply. Indefinite and definite integral, applications. Partial derivatives and extremum of function of two variables. Conditional extremum. Differential and difference equations.

# Teaching and assessment:

The theoretical basis of the topics presented at lectures is acquired at seminars through solving problems; individual practising and reinforcing is accomplished by weekly assignments. Two written tests are administered and students with grades above 4 are exempt from an exam and their term mark is formed on the basis of an interview with the lecturer. Students are given 12 problems at the exam and they have to solve at least 3 to pass.

# 3475 Sociology

ECTS credits: 4

Assessment: continuous assessment mark

Weekly workload: 2L + 1S + 0Lab + 0P Type of exam: written and oral

# Department involved: Department of Management and Business Development

**Lecturers:** Prof. Loretta Petrova Parashkevova, DSc, Dept. of Management and Business Development **Abstract:** The course gives introductory knowledge for the nature of society and social processes on the one hand, and of the state and civilizations on the other, of the crises and cycles in their development. Accents in the theoretical knowledge are put on the classical and contemporary theories for the nature and development of society, social groups and communities. Next to that students are expected to be acquainted to the social content and specifics of economics and politics of labor and market. Purpose of the subject is that the students are able to build up sociological culture for identification and analysis of social phenomena and processes in society.

# Course content:

The following topics are included: Sociological approach. Sociological research. Culture. Society. Civilization. Socialization. Social interaction. Groups and organizations. Deviant behavior. Stratification. State. Policy and government. Eoconomy and labor. Local, world and global civilizations. Social changes. Crises and cycles. **Teaching and assessment:** 

# Teaching and assessment:

During contact hours the essence of each topic is proposed in a systematic and structured manner. Students are acknowledged with the theoretical basics of the learning content. Appropriate examples from the social practice are commented. During seminars situational analyses are conducted, case studies are solved, discussions on papers developed by the students are made with the purpose to master the key elements of learning contents. Validation of semester is possible when the following requirements are kept: at least 80% presence during contact hours; at least result of Average 3 (E) as an on-going evaluation for the semester, which is being formed on basis of the evaluations of the test on the course topics, intermediate and final test evaluations, evaluation on the research paper.

# 1692 English Part; 1732 German Part; 1740 French Part

ECTS credits : 7

Weekly workload : 0L+0S+0Lab+6P+CA

**Assessment:** continuous assessment

Department involved: Department of Foreign Languages, Faculty of Law

#### Lecturers:

1. SL Pencho Konstantinov Kamburov, Dept. of Foreign Languages, E-mail: pkamburov@uni-ruse.bg

2. SL Sergey Bartenev, Dept. of Foreign Languages ; E-mail: sbartenev@uni-ruse.bg

3. SL Roumyana Ivanova Milanova, Dept of Foreign Languages; E-mail: mivanova@uni-ruse.bg

# Abstract:

'Foreign language Part 1' aims to provide communicative competence in English, German or French in the area of the major subjects studied and the future job. The teaching objectives comprise the development of reading comprehension skills to cope with specialised texts and the acquisition of communication skills to interact successfully in professional settings and everyday situations. These objectives are achieved on the basis of work with a textbook and different types of authentic materials - business correspondence, articles, diagrams, brochures, catalogs.

#### Course content:

Communications in business. Benefits of learning other languages. Phone calls. Letters, faxes, e-mails. Applying for a job. Producing a CV and a covering letter. Employment. Changing economies. Free trade. Dealing with customer calls. Import and Export. Marketing sportswear brands. Supply chain. Changing customer behaviour.

#### Teaching and assessment:

The methods applied aim to build up sufficient knowledge and skills for communication. An important element is the motivation of students and the creative atmosphere in the classroom. During the practical exercises new information is introduced and reinforced; students take part in role plays and give presentations; video and multimedia materials are used. The continuous assessment mark reflects the results from the oral and written testing. The requirements for obtaining a semester validation signature are regular attendance and involvement in the classes, doing the tests and completing the assigned tasks.

### **1806 Political Science**

ECTScredits: 4 Weekly workload: 2L + 1S + 0Lab + 0PE Type of exam: written and oral Assessment: current Department responsible: Department of Law, Faculty of Law Lecturers: Assoc. Prof. Velichko Kirchev Panteleev PhD, Department of Law, tel: 888-434;

# Abstract:

The course will introduce students to the main issues in Politics today. It is designed to develop an understanding of the various ways societies organize themselves to manage conflict and cooperation, and to make and implement public policy. Emphasis will be placed on concepts, practices, and rationales for policy analysis. Continuing attention will be paid to defining a policy problem, examining options, and developing policy recommendations.

#### **Course content:**

The course will provide a historical background of the political development across the globe. It will stress on contemporary political issues such as Liberalism and Conservatism. Students will study topics including different aspects of institutional policy, the current political changes, and institutions in Europe.

#### Teaching and assessment:

Most of the teaching is by lectures providing a comprehensive approach for understanding the main issues of the Political Science. Group work provoke students' active participation. Discussions are held, main aspects are highlighted, students' preparation is assessed. There is an individual complex course assignment to consolidate the application. The current assessment consists of two parts: a written and oral one. In giving the mark, the examiner takes into account the student's performance at seminars, as well,

# 1813 Mechanics

### ECTS credits: 6

Assesment: exam

#### Weekly workload: 2 lec + 2 lab + 1 c.w Exam type: written

**Departments involved:** dep. of Engineering Mechanics, fac. of Mech. and Manufacturing Engineering **Lecturer:** assoc. prof. Dr. Ivelin Ivanov, tel. 888 224, e-mail: <u>ivivanov@ru.acad.bg</u>;

#### Abstract:

The forces acting on solids and the behavior of the material under the action is studied in the Mechanics of Materials. The basic loadings of solids and their elastic behavior is considered. The students get acquainted with the testing of materials and their behavior not only in the elastic, but also in the plastic condition. **Course description:** 

Statics. Equilibrium of forces. Internal forces, stress, and strain. Tension-compression. Testing of materials. Plastic and brittle materials. Shear and torsion. Bending. Cross-section characteristics.

#### Teaching and assesment:

The theoretical basis of the topics is elucidated in lectures with minimal mathematics. The assertions are illustrated by examples, which makes the students understand easy the material and to realize better the laboratory exercises. The conclusions about material behavior withdrawn in lectures are demonstrated in the laboratory exercises.

#### 1623 Physics

#### ECTS credits: 6

Assessment: exarn

Weekly classes: 2 lec + 0 sem + 2 labs + 0 ps

#### Type of exam: written

**Department involved:** Department of Physics, Faculty of Electrical Engineering, Electronics and Automation **Lecturers:** 

1. Assoc. Prof. Galina Zaharieva Krumova, PhD, Department of Physics, tel. 888 215, 584, E-mail: gal@uni-ruse.bg

2. Assoc. Prof. Petko Hristov Mashkov, PhD, Department of Physics, tel. 888 583, 584.

#### E-mail: pmashkov@uni-ruse.bg

#### Abstract:

As a fundamental science Physics is of great significance for the formation of the modern man's world outlook. The Physics course under consideration is useful also with a view to the specificity of the subject Industrial Management. The designation is the acquaintance with the basic achievements of the classical and modern Physics and their practical applications. The complexity level is in accordance with the expected minimum of Physics and Mathematics basic knowledge.

#### Course content:

The course is short because of the limited horrarium. it includes Thermodynamics, Electricity and Magnetism, Wave Motion, Optics, Quantum Optics, Atomic and Nuclear Physics. Special attention is paid to the physical base of metrology, ecological problems, etc

#### Teaching and assessment:

During the lectures appropriate technical means, mainly video films are used. The laboratory classes imply a preliminary examination test, brief theoretical explanations and experimental directions and supervised experimental work A terminal score is formed. The examination includes a written test.

### 2316 Information Systems and Technologies – part 1

ECTS credits: 4 Assessment: continuous assessment Weekly classes: 1lec+0sem+0labs+2ps Type of exam: test

**Departments involved:** Department of Informatics and Information Technologies, Faculty of Pedagogic and Education

#### Lecturers:

1. Assoc.Prof. Plamenka Hristova, PhD, Dept. Of Informatics and Information Technologies, tel.:+359 82 888 326; E-mail: <u>ptx@ami.uni-ruse.bg</u>

2. Principal assistant, PhD Magdalena Andreeva, Dept. of Informatics and Information Technologies, tel. +359 82 888 470 E-mail magie@ami.ru.acad.bg

#### Abstract:

The course objective is students to get familiar with the computer as technical facilities and work principals, with main ideas of the networks, as well as the contemporary operating systems and the most used office software. It is given particular stress on computer aided documentation and its presentation. The aim of the workshops is students to improve work with computers in practice using the most applied program systems, i.e. Windows, Word, Excel, MS Power Point and Internet.

#### Course content:

Basic topics: Brief history of computer development; Main components of a computer system; Classification of computers; Central processing units; RAM and ROM; Data presentation in computers; Multi-core processors; Magnetic storage, optical storage, Flash memory; Input-output devices; Computer networks; System programs; Operation systems – functions and tasks, components, classification, well-known operation systems; Applied software; Office software.

#### Teaching and assessment:

The discipline is learnt through lectures, workshops and out-of-classes studies. Students have to prepare themselves for the workshops by studying the given materials, as well as by revising previous workshops. Each student has to develop a course assignment including three tasks during their out-of-classes studies.

#### 1688 Economics

ECTS credits: 5Weekly classes: 2lec+2semAssessment: examType of exam: writtenDepartment involved: Department of Economics, Faculty of Business and ManagementLecturers:

Assoc. Prof. Emil Georgiev Trifonov, Ph.D., Dept. of Economics, tel.: 888 703, E-mail: e trifonov@abv.bg

#### 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:

Nature of the economic science; Measuring the economic activity; Production of goods and services; Expenses and incoms of the company; Market and market mechanism; Demand and supply elasticity; Economic systems and market forces; Competition and market behavior; Price-formation and incomes from production factors; Market economy, monetary supply and banks; State intervention in the economy; Macroeconomic policy and economic theory; Management of economic; Exchange rates and exchange rates mechanism; Public policy and international exchange.

#### 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 exam.

### ECTS credits: 6

Assessment: continuous assessment

Workload: 1L+ 0S+0lab +3p+1ca

Type of exam: written

**Departament involved:** "Machine science, machine elements and engineering graphics", Faculty of Transport Lecturer:

Assoc. Prof. Petar D. Pantileev PhD : "Machine science, machine elements and engineering graphics", tel. 888 491

#### Abstract::

The subject examines the methods and means of presentation of three-dimensional objects by plane images and ways of analysis , convert and optimize the graphic images. It also examines the rules for doing and making out plans, technical text documents; norms and instructions of Bulgarian and international standards considering drawing up technical documents It develops the steric imagination of students and their skills to cope with technical documents This subject is a base of further learning of other technical branches of science.

#### Course content:

Kinds of projection. Comprehensive drawing . Reciprocally position of principal geometric objects. Convert of a comprehensive drawing. Methods of projection. Reciprocally crossing of geometric objects. Images in the drawings . Axonometric projection. Different connections - threaded, splinted and permanent connections. Drawing of a machinery piece - content , composition , images , measures , tolerance of dimensions .method of indicating surface texture , text information Special documentation of some technical products. Drawings of precast units. Item list. Text documents.

#### **Teaching and learning methods:**

The theory ,read in lectures by didactic means, gives the needed base for leading practical classes and course assignments .During the training are solved problems , given instructions , considered examples. In the course assignment the students are required on doing a number of plans. The subject ends with a continuous assessment, which is formed by marks of two tests and the score of the course assignment An attestation is given , according to the academic regulations, when the course assignment is done and the lectures and practical classes are attended

#### 0066 Business English Part I; 0522 Business German Part I; 0799 Business French Part I

ECTS credits: 3

Weekly workload : 0L+0S+0Lab+2P

Assessment: exam Department involved: Department of Foreign Languages, Faculty of Law

#### Lecturers:

1. SL Pencho Konstantinov Kamburov, Dept. of Foreign Languages, E-mail: pkamburov@uni-ruse.bg

2. SL Sergey Bartenev, Dept. of Foreign Languages ; E-mail: sbartenev@uni-ruse.bg

3. SL Roumyana Ivanova Milanova, Dept of Foreign Languages; E-mail: rmivanova@uni-ruse.bg

**Abstract:** Business Foreign Language Part 1 aims to raise the communicative competence of the students in the area of study and the future job. The teaching objectives comprise the development of reading and listening comprehension skills to deal with specialised texts and the acquisition of communicative skills to interact successfully in professional settings and everyday situations. These objectives are achieved through working with a textbook and different types of authentic materials - articles, diagrams, tables, brochures. **Course content:** Competition. Innovations. Money. Negotiations.

**Teaching and assessment:** The main objective of the course is to provide knowledge and skills through the use of didactic and authentic materials, allowing for more efficient communication in business-like situations. The work in the classroom is supplemented by students' individual work – translation of a specialised text. Students take part in role plays and give presentations; video and multimedia materials are used. The continuous assessment mark is based on the results from the tests, the participation in classroom activities and the quality of the translation done. The requirements for obtaining a semester validation signature are regular attendance and involvement in the classes, doing the tests and completing the assigned tasks.

# 1978 Information Systems and Technologies, part II

#### ECTS credits: 5

#### Weekly workload:1 L + 0S + 0Lab + 3P / CW Type of exam: written test

Assessment: Continuous assessment

# **Department involvement:** Department Informatics and Information Technology,

**Lecturers:** Assoc.Prof.PhD Aleksandar Petkov Petkov Department of Management and Business Development, tel.:888776, apetkov@uni-ruse.bg

HA PhD Magdalena Hristova Andreeva. Tel.888470, magie@ami.uni-ruse.bg

# Abstract:

Target of the lectures is to teach students the contemporary business information systems and technologies. In the practical exercises the students works and acquires practical knowledge in using business application software: Excel and Access.

#### Course content:

Information systems. File systems and database. Data modeling. Relational model of data. Relational algebra. Database languages. Nature and characteristics of the information. Business information. IT for manipulating, analyzing and presenting of business information. Information technologies in administration. Information technologies for financial management. Internet technologies and business.

# Teaching and assessment:

Lectures involved students in the subject of the module – they describe the main questions and specific characteristics of the business application software. Practical exercises are proceeding in a computer lab and include practical tasks which are completed by the students with help of the assistant. At the end of the semester the assistant evaluate skills of the students. Each student is working during the semester on individual task which is evaluated by the assistant. A test is used at the end of the semester to evaluate the acquired theoretical knowledge of each student. The final evaluation is calculated as an average of the test results, the evaluation of the practical exercises, and individual work content and presentation.

#### 2146 Advanced Computer Technologies

ECTS credits: 4

Assessment: continuous assessment

Weekly classes: 21 + 0s + 0lab + 2p Type of exam: written

**Methodology management:** Department of Computing, Faculty of Electrical and Electronic Engineering **Lecturers:** Assist. Prof Galina Ivanova Ivanova, PhD, Department of Computing, Tel: 888-827, e-mail: <u>givanova@ecs.uni-ruse.bg</u>

#### Abstract::

The main goal of the course is to teach students in modern computer systems and technologies, organization and operation of modern peripherals, new technologies in computer printing devices, multimedia and Internet technology, virtual technology, 3D technology and interactive presentation systems. **Course content:** 

Lectures introduce state of the modern computer systems and technologies, modern peripherals, multimedia systems, virtual environments, interactive presentation systems and others. Advantages and disadvantages of the different technologies are presented. Lectures give knowledge about future trends in in computer systems and technologies.

#### Teaching and assessment:

Lectures are carried out in blocks of two classes every week, practical classes are carried out in blocks of two classes every week. The theoretical material from the lectures is applied during the practical classes. The final grade is based on exam, covering the material from the lectures, as well as the practical classes.

#### 1930 Business English Part II 1966 Business German Part II 1968 Business French Part II

ECTS credits: 2

Weekly workload : 0L+0S+0Lab+2P

Assessment: continuous assessment

Department involved: Department of Foreign Languages, Faculty of Law

Lecturers:

1. SL Pencho Konstantinov Kamburov, Dept. of Foreign Languages, E-mail: pkamburov@uni-ruse.bg

2. SL Sergey Bartenev, Dept. of Foreign Languages ; E-mail: sbartenev@uni-ruse.bg

3. SL Roumyana Ivanova Milanova, Dept of Foreign Languages; E-mail: <u>rmivanova@uni-ruse.bg</u>

**Abstract:**Business Foreign Language Part 2 aims to raise the communicative competence of the students in the area of study and the future job. The teaching objectives comprise the development of reading and listening comprehension skills to deal with specialised texts and the acquisition of communicative skills to interact successfully with native speakers in professional settings and everyday situations. These objectives are achieved through working with a textbook and different types of authentic materials - articles, diagrams, tables, brochures.

Course content: Market research. Investments. Business ethics.

**Teaching and assessment:** The main objective of the course is to provide knowledge and skills through the use of didactic and authentic materials, allowing for more efficient communication in business-like situations. The work in the classroom is supplemented by students' individual work – translation of a specialised text. Students take part in role plays and give presentations; video and multimedia materials are used. The continuous assessment mark is based on the results from the tests, the participation in classroom activities and the quality of the translation done. The requirements for obtaining a semester validation signature are regular attendance and involvement in the classes, doing the tests and completing the assigned tasks.

# **1975 Electrical Engineering and Electronics**

ECTS credits: 5

Weekly classes 2I+0s+1Iw+0-pw+1cw Type of exam: written

Assessment: examination Type of exam: written Department involved: Department of Theoretic and Measuring Electrical Engineering, Faculty of Electrical Engineering, Electronics and Automation

#### Lecturer:

Assoc Prof Dr Nadezhda Liozovna Evstatieva; Dept. of Theoretic and Measuring Electrical Engineering; tel : 888 638

# Abstract

The goal of the course "Electrical engineering and electronics" is to introduce the students to the fundamental laws for analysis of electrical circuits, the basics of the electrical measurements, the most common electrical machines as well as the basic elements and circuits in the electronics It is necessary the students to have a preliminary knowledge from the courses of "Physics" and "Mathematics" The course is a prerequisite for the courses "Industrial ingmeering" and "Energy-efficient sources and technologies". **Course content:** 

Basic concepts and elements of the electrical circuits. DC circuits The Ohm's law and Kirchhoff's laws and their application in the circuits analysis AC circuits Parallel, series and mixed elements connection. Electrical resonance phenomena. Power Three-phase circuits Electrical measurements Transformers Electrical machines Semiconductor elements: diodes, transistors, thyristors integrated circuits Analog semiconductor circuits amplifiers operational amplifiers Power supply semiconductor circuits rectifiers, stabilizers Digital circuits.

#### Technology of teaching:

The course includes lectures, labs and a coursework The lectures are presented with a presentation The current assessment is carried out during the labs and consists of entry assessment and individually assigned tasks There is a 10 minute quiz on the discussed topics during some of the labs The mark of the course is formed after a written exam, which includes theoretical topics from the lectures and individually assigned tasks.

#### 1977 Technological processes in the industry

# ECTS credits: 5

#### **Assessment:** Continuous Evaluation

# Weekly workload: 2+1+0+1

Type of exam: written Responsible department: Department of Management and Business Development, Faculty of Business and Management

#### Lecturers:

1. Assist. Prof. Pavel Vitliemov PhD, Dept. of MBD, tel. 888-495, e-mail: pvv@manuf.uni-ruse.bg

#### Abstract:

The purpose of the "Technological processes in the industry" course is to provide the students with knowledge about basic technological methods and processes in the industry. A prerequisite for the course is the knowledge in Applied Physics, Industrial Chemistry, Mechanics of Materials, Material Science and Technology of materials.

#### **Course content**

Addressed are methods of mechanical processing, the technological processes in mechanical engineering, electrical industry, instrument engineering and electronics. Planned are exercises and visits to industrial companies for knitwear and for the production of clothing.

#### **Teaching and assessment**

The major part of the educational material is presented during the lectures. Seminar sessions are carried out for the most important topics in order to enhance the knowledge of students and make it easier to understand, as well as for acquiring certain practical skills for using the existing methods. The active participation of students is accomplished by the implementation of specific tasks for technological process in the industry. The results are presented and analysed during the seminars. The course is considered validated if the students have attended more than 50% of the lectures and 100% of the seminar sessions.

#### 2005 Management Information Systems

ECTS credits: 5

Weekly workload: 2 L + 0 S + 0 Lab + 2 P+CW

Assessment: Current assessment

Type of exam: written test Department involved: Department of Management and Business Development, (MBD)

Lecturer: Assoc. prof. Aleksandar Petkov Petkov. Dep. MBD, tel.:888776, apetkov@uni-ruse.bg

Abstract: The course is building the information culture of the future specialists in area of business management/public administration and cower in depth problems of Information systems and technologies. The students study the contemporary management information systems. Acquired knowledge and skills will be useful in future work of the students as managers.

Course content: Information systems and technologies in business. Analyses of the information system. Management information system in business organizations. Data base for management information systems. Marketing information system. Manufacturing information system. Finance information system. Human resource information system. Decision support information system. Executive information system. Enterprise resource planning and management system. Information management.

**Teaching and assessment:** Course teaching is organized by lectures and practical exercises. The lectures are presenting basic principles and specific characteristics of management information systems and technologies. The practical exercises are organized in a computer lab. The students must be prepared in advance by learning the lectures and handouts presented in the course's WEB site.

# **Organizational Behaviour**

ECTS credits: 5 Assessment: exam

#### Weekly workload: 2 L + 2S + 0 Lab+ 0 P

Type of exam: written and oral

**Department involved:** Dept. of Management and Business development, Faculty of Business and Management

#### Lecturers:

1. Emil Kotsev, PhD, Dept. of Management and Business Development, tel: 888-715;

E-mail: ekotsev@uni-ruse.bg

#### Abstract:

This integrated course covers some of the most important issues, concerning the individual and the group in the social organization. On one hand, the course aims to provide students with some specific knowledge about individuals, groups and organizations. On the other hand, it aims to provide some management skills, like team work, communication, decision making, etc. The course builds on knowledge and skills acquired in Sociology, Sociology of Labour, General Psychology, Individual Psychology, Social Entrepreneurship and is a prerequisite for Organization and Management of Social Activities and Human Resources Management.

During the development of the programme it has been taken into consideration that most of the students are young people without sufficient experience and skills. This is the main reason for the prevailing of management games and case studies during the exercises. The knowledge and skills gained could be useful for employees at all organizational levels.

#### Course content:

The course includes the following topics: Individual and Personality; Group and Team; Organization and Structure; Motivation and Training; Behaviour and Style; Power and Leadership.

#### 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. 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 on the participation assessment during the exercises and the exam grade.

#### 3501 Insurance

ECTS credits: 5 Assessment: exam Weekly workload: 30L+15S+0Lab+0P+CA Type of exam: written and oral

**Department involved:** Department of Management and business development, Faculty of Business and Management

**Lecturers:** Assoc. Prof. Dr. Daniel Pavlov, Department of Management and Business Development, dpavlov@uni-ruse.bg

**Abstract:** The subject is focused on delivering of knowledge, creating skills and development of competences in the students to manage the corporate risks by insurance. It requires prior knowledge in mathematics, law, management, informatics, economics, finances, statistics, etc. At the end of the course students will be able to join other courses in the domain of theoretical, applied and professional knowledge of several domains: human resources management, planning and forecasting, project management, innovation management, etc.

**Course content:** Introduction. The nature of insurance. Sources of risk. Risk classification. Participants and terms in the insurance process. Compulsory insurance. State insurance policy.

**Teaching and assessment:** The content is delivered to the students by topic-oriented lectures and seminars. Students are able to use the web-based platform at the University of Ruse (E-learning) for their self-preparation. The seminars are focused on practical issues. The assignments are individual and team with main idea to create and develop skills and competences in the students to use realistically the theoretical tools. The assessment is focused on working on practical assignments, which the students send by e-mail. The final assessment is based on: the active participation of the students during the classes (15%), course assignment (35%) and test (50%).

#### 2002 Advanced Production Systems

ECTS credits: 5

# Weekly workload: 2+2+0+0

**Assessment:** Continuous Evaluation

Type of exam: Responsible department: Department of Management and Business development, Faculty of Business and Management

# Lecturers:

1 Assist. Prof. Pavel Vitliemov, PhD, Dept of MBD, tel. 888-495, e-mail: pvv@manuf uni-ruse

#### Abstract:

The purpose of the "Advanced Production Systems" course is to provide the students with knowledge about the basis of the industrial production and the production systems, and also with the compositions of the advanced production systems in the industry. A prerequisite for the course is the knowledge in Mathematics, Mechanics of materials, Information systems and technologies. Technological processes in the industry. Course content:

Addressed are synchronous production and cycle automatic imes Particular attention is devoted to flexible manufacturing systems and computer-Integrated production systems. In this connection are considered industrial robots and the choice of gripping devices and the characteristics of the technological preparation and machinery built-in the flexible manufacturing complexes.

#### Teaching and assessment:

The major part of the educational material is presented during the lectures. Seminar sessions are carried out for the most important topics in order to enhance the knowledge of students and Take it easier to understand, as well as for acquiring certain practical skills for using the existing methods. The active participation of students is accomplished by the implementation of specific tasks for one of the proposed topics. The results are presented and analysed during the seminars. The course is considered validated if the students have attended more than 50% of the lectures and 100% of the seminar sessions.