



SOUTH - WEST UNIVERSITY „NEOFIT RILSKI“,
BLAGOEVGRAD, BULGARIA

FACULTY OF ENGINEERING

DEPARTMENT OF TECHNICAL EDUCATION AND
PROFESSIONAL TRAINING

QUALIFICATION DESCRIPTION

BACHELOR'S PROGRAMME

PEDAGOGY OF TECHNOLOGIES AND ENTERPRENEURSHIP EDUCATION

Field of higher education:	1. Educational sciences
Professional area:	1.3. Teaching methods of... (different subjects)
Degree level:	Bachelor's
Professional qualification:	Teacher of technologies and entrepreneur ship
Period of education:	Four years (8 semesters)
Form of education:	Full-time

1. Qualification level

The Bachelor's Degree and Professional Qualifications of graduates of the Pedagogy of Technologies and Entrepreneurship Education correspond to Level 6 of the European Qualifications Framework and Level 6 B of the National Qualifications Framework. Compliance with the National Classification of Occupations and Positions in the Republic of Bulgaria has also been achieved, which ensures the implementation of the International Standard Classification of Occupations, 2008 (ISCO-08).

2. Purpose

Graduates of the Pedagogy of Technologies and Entrepreneurship Education are prepared to carry out educational, research, methodological and organizational-management activities related to technology and entrepreneurship education in the school education system. They are responsible for organizing and directing activities in support centers for the personal development of interests, abilities and competences in the field of science and technology, and for the development and expression of the students' initiative and entrepreneurship.

Graduates of the Pedagogy of Technologies and Entrepreneurship Education are competent to carry out activities for managing international programs for the implementation of educational policies for technological and entrepreneurial training in formal and non-formal educational settings.

3. Learning outcomes

3.1. Theoretical and factual knowledge

Graduates of the Pedagogy of Technologies and Entrepreneurship Education have extensive and in-depth theoretical and factual knowledge:

- **for critical** perception and analysis of theories;
- **for self-**interpretation of scientific principles, facts, laws and regularity;
- to connect facts, understand and express theories and principles in the fields of technology, economics and science schools in the field of entrepreneurship.

3.2. Cognitive and practical skills

- **communicate and work** in a team;
- **to plan, organize and carry out** teaching and training activities;
- **to lead** students' technology activities and entrepreneurial initiatives;
- **identify, select and use** suitable materials, elements and products, tools, machines, appliances and equipment for practical work;
- **solve** problems.

3.3. Competencies

A) Independence and responsibility

- **apply** knowledge of mathematics, science, technology, economics and entrepreneurship;
- **carry out** pedagogical interaction in an interactive educational environment;
- **use** modern scientific methods and tools for research and diagnosis of the results of training in technology and entrepreneurship;
- **plan, organize and implement** various forms of technological activities, entrepreneurial initiatives and educational projects.

B) Competence to learn

- **evaluate** the extent of their own qualification level;
- **select** appropriate forms and programs for lifelong education.

C) Communication and social competences

- **provide** up-to-date information on the professions and careers of teachers, students and parents;
- **communicate** fully in English using proper terms in the fields of engineering, technology, economics and entrepreneurship;
- **distinguish** and select e-learning resources.

D) Professional competencies

- **modeling** technical objects;
- **know and apply** basic economic concepts and categories;
- **form** entrepreneurial attitudes and initiative in students]
- **research and evaluate** curriculum development, educational methods and practices applied in technology and entrepreneurship training.

4. Qualification and career development

The achieved learning outcomes enable graduates of the Pedagogy of Technologies and Entrepreneurship Education to take up the post of "teacher" in the general subject "Technology and Entrepreneurship".

OUTLINE OF THE PROGRAM

First semester		Second semester	
Compulsory courses	ECTS credits	Compulsory courses	ECTS credits
Engineering Graphics	6	Psychology	4
Mathematics	5	Computer Graphics	5
Biology	5	Technological Training in Technical Measurements	3
Fundamentals of market economy	5	Technological Training in Agro- and Zoo- Technologies	3
Training in Computer Technologies	6	Materials science	6
Foreign language (English)	3	Educational studies	5
Sports		Sports	
		Elective courses	
		Students can chose one course of the module: Module B - Interdisciplinary and applied experimental disciplines- first discipline: Technical Mechanics Applied Mechanics Module C (Applied Psychological and Educational Sciences and Activities): Technology of Organizational Behavior Jobs Analysis	4
	Total: 30		Total: 30
Third semester		Fourth semester	
Compulsory courses	ECTS credits	Compulsory courses	ECTS credits
Fundamentals of Electrical Engineering and Electronics	5	Didactic Prognosis and Modeling Part 1	5
Educational Training in School	3	Fundamentals of Entrepreneurship	4
Training in Electrical Engineering and Electronics	3	Technological Training in Mechanical Technologies	4
		Pedagogical Training in Information and Communication Technologies in Education and Working in a Digital Environment	4
		Management of Educational Projects	4
Elective courses		Elective courses	
Students can chose one course in each of the following modules A and B , and two courses of the module C: Module A - Economics and entrepreneurship - first discipline: Fundamentals of Management	6	Students can chose one course in each of the following modules: Module B - Interdisciplinary and applied experimental disciplines - third discipline: Cloud Computing in Education Renewable Energy Resources	4 5

Methods of Technologies and Entrepreneurship Training in Secondary education	6	Internship Final graduation exam: -Practical part -Theoretical part or Thesis defense	20
Technologies for Teachers' Career Development	6		10
Technology of Project-based technology training	4		
Pedagogical Training in Inclusive Education	2		
Elective courses		Elective courses	
Students can chose one course of the module A and two courses of the module E: Module A - Economics and entrepreneurship - second discipline: Family business Financing the Entrepreneurial Business Module E - Specific Methods: Methods for Traffic Safety Training - first discipline Assessment in Technology and Entrepreneurship Training - first discipline Methods of Extra –curricular training - second discipline Methods of Comparative Educational Studies - second discipline	4 4 4 4 4	Students can choose one of the courses offered (second to seventh semester): Pedagogical Sociology Methods of Developing Social Competencies Financial literacy Psycho-Pedagogical Measurement in Technology Education Three-dimensional modeling and Augmented Reality in Technology and Entrepreneurship Training School Administration	2
	Total: 30		Total: 32
Total number of ECTS credits for the whole course of study: 242			

COURSE DESCRIPTION

Engineering Graphics

Semester: I semester

Course Type: lectures and seminars

Hours per Week/SS: 1 lecture hours and 2 seminars hour per week

Credits: 6 credits

Lecturer:

Assoc. Prof. Evdokiya Panayotova Petkovd, PhD

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e.p.petkova@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Description: The content of the program covers the main issues relating to methods of image creation and standards related to engineering graphics.

Course Aims:

"Engineering Graphics" is to acquaint students with basic terms in engineering graphics and standardization requirements for the use and development of design documents.

Teaching Methods:

Lectures and practical exercise.

Assessment:

Written exam. Students take two tests during the semester and develop individual assignment.

Mathematics

Semester: I semester

Course Type: seminars, lectures

Hours per Week/FS/SS: 2 hours lectures per week + 1 hours seminars per week/FS

Credit: 5 credits

Lecturer:

Assoc. Professor Kostadin Malinov Samardzhiev, PhD

E-mail:

k_samardzhiev@abv.bg

Department:

Mathematics,
Faculty of Mathematics and Natural Sciences

Course Status: Optional course

Course Description: The course includes: solving problems from corresponding topics of the school curriculum in mathematics; analyzing and generalizing of the solution methods, using students' knowledge in methodology and the courses: Foundations of High Course in Mathematics.

Course Aims: Students should obtain knowledge for the nature of mathematical problems in High Course in Mathematics (HCM). Moreover in the course are clarified the aims that should be pursued, when mathematical problems are solved. The course helps students to systematize and to assimilate their knowledge in

methodology and in this way they get profound preparation for their future profession; the students get problem solving skills in HCM, using knowledge of different age groups.

Teaching Methods: lectures, seminars, tutorials, assignments, projects, tests.

Requirements/Prerequisite: Some knowledge in methodology of teaching mathematics and School Course in Mathematics 5-12 grade /specialized preparation 8-12 grade/, is necessary.

Assessment: The final grade is formed of the results of two problem solving tests, during the semester – 75%, and a project presentation – 25%.

Biology

Semester: I semester

Course Type: lectures and practical exercises

Hours per Week/SS: 2 hours of lectures per week / one hour exercises - 15 weeks

Credits: 5 credits

Lecturer:

Assoc. Prof. Lidia Sakelarieva, PhD

E-mail:

sakelarieva.lidia@swu.bg

Assist. Prof. Alexander Pulev, PhD

E-mail: spu@swu.bg

Department:

Geography, Ecology and Environmental Protection,

Faculty of Mathematics and Natural Sciences

Course Status: Compulsory

Course Description:

The course in Biology includes the study of fundamental issues of biology as a system of fundamental and taxonomic sciences, which are at the core of agriculture and forestry, medicine and biotechnology. It is emphasized on the characteristics of the cell - prokaryotic and eukaryotic, as a basic structural and functional unit of the organisms, the characteristics of the plant tissues and organs, the classification of the organisms. Attention is drawn to the main physiological processes in the organisms - photosynthesis and respiration, heredity and variation, and the more important biotechnology.

Course Aims:

The course in Biology is designed to present the basic knowledge about the different forms of organization of living matter, the classification of living organisms, the basic physiological processes, the organization of genetic material, the genetic engineering, the achievements and perspectives of plan biotechnologies etc. The main tasks are directed towards acquiring knowledge for the structure and functioning of living systems, and gaining research skills.

Teaching Methods: lectures and laboratory work.

Requirements/Prerequisites: No prerequisites.

Assessment: written final exam (final test), one test during the semester, and a course assignment.

Registration for the Course: by request at the end of the semester.

Registration for the Exam: coordinated with the lecturer and the Student Service Department.

Fundamentals of market economy

Semester: I semester

Course Type: lectures and practical exercises

Hours per Week/SS: 2 hours of lectures per week

Credits: 5 credits

Lecturer:

Assist. Prof. Boryana Dimitrova, PhD

E-mail:

d_dimi@swu.bg

Department:

Economics,

Faculty of Economics

Course Status: Compulsory

Course Description:

The lecture course is designed in accordance with the general objectives. It aims at revealing the general economic laws, economic principles and causation that arise during the functioning of the economic system.

The latter appears to be a complex socio-economic whole that contains relatively differentiated microeconomic units – the firms and the households. The purpose of the training course “Bases of economics” is to provide students with deep knowledge on the content and the main mechanisms, as a base for functioning of the market economy. Course content: Subject and field of the bases market economy. Methods and instrumentarium. General economic theories. Market mechanism. Nature. Demand. Supply. Market balance. Specific features of the market mechanism in the material and socio-cultural sphere. Peculiarities of the market mechanism in the sphere of Tourism. Analyses of the demand and supply. Flexibility of the demand and supply. Methods of measuring. Utility. Consuming. Total and top utility. Specific curves., related to the usefulness and the effectiveness. Production. Production function. Combining of the production factors and creating an optimal production function. Law of the reduced 7 recapturing. Marginal analyses and marginal production. Market structures. Perfect competition, monopolistic competition. Oligopols. Monopols. Market structures in tourism. Market of the main factors(resources) of production. Incomes. Demand and supply of resources. State intervention in the economics. Necessity. Economic conception. Critics of the economism. Defining the state of economics. BNP. Indexes and approaches. Participation of the tourist branch in the formation of the BNP and its' derivative indexes. Business cycles, inflation, unemployment. Business cycles. Phases of the business cycles, grafics of D. Cains. Inflation. Growth of money and inflation quantity. Unemployment. Defining the engagement. Exchange, money and banking. Pay-balance. Operations in the international trade activity. Currency and currency exchange.

Teaching and assessment:

The course ends with an exam. The course gives priority to practical and independent work of students, which is intended to be both individual and a team work. The knowledge, skills and expertise in developing both practical performance and the scholarly works, computer tests and course assignments are assessed. An ongoing assessment is applied. The aim of the ongoing assessment is to establish responsibility in respect of the prior training of the systematic learning, the formation of skills for applied thinking, work with information products and ability to a team work.

Training in Computer Technologies

Semester: I semester

Course Type: laboratory exercises

Hours per Week/SS: three hours exercises - 15 weeks

Credits: 6 credits

Lecturer:

Assist. Prof. Vasilisa Pavlova Valeova, PhD

Department:

Technical Education and Professional Education,
Faculty of Engineering

E-mail:

vasy_pav@swu.bg

Status of the course: Compulsory

Description:

The Course is a practical discipline that builds perception of students about the nature and possibilities of modern computer technology, forming basic computer skills and competencies needed for effective professional pedagogical activity in terms of the information society.

Emphasis on the practical use of computer systems for technological training and formation of basic IT knowledge and skills that make up the basis of modern technical and technological culture.

Purpose of the course:

The aim of the course is the students to learn the knowledge, skills and competences with practical and applied foundations for the use of modern computer technology required for their professional and educational activities at school.

Methods:

Exercises are conducted in groups in computer lab with a video projector. Usually the groups are divided in 10, max 14 students.

Assessment:

Continuous assessment. Students conduct two tests during the semester and solve practical assignments. If the assessment of students is <Average 3, after the end of the semester the students take the examination for a final evaluation, taking into account the students tests results.

Registration for the Course: by request at the end of the current semester

Registration for the Exam: coordinated with lecturer and Student Service Department.

Foreign language (English)

Semester: I semester

Course Type: practical exercises

Hours per Week/SS: 2 hours exercises - 15 weeks

Credits: 3 credits

Lecturer:

Assist. Prof. Sofia Mirchova, PhD

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sophia_mirchova@swu.bg

Department:

Tourism,

Faculty of Economics

Status of the course: Compulsory

Description: This course is designed for students in technical or vocational education. It is intended to develop the ability of the participants to communicate comprehensively and to undertake technical studies in English, using appropriate vocabulary and grammatical structures. The course focuses on all language skills as well as accuracy.

Students encounter various activities and audio visual aids as sources/cues for learning and using the language. The course aims to consolidate the English that the students already know, and to give them confidence in using the language.

This course is aimed at:

Preparing participants who intend to get a job in technology.

Developing participants' communication skills.

Providing participants with background in major technological concepts.

Understanding some English terms used in topics related to technical and industrial fields.

Recognizing and use different note taking techniques.

Course content:

Tools and instruments, basic technical operations, materials, quality and characteristics of materials, describing tools and materials, shapes and measurement, describing a workshop, giving and understanding technical instructions, reading comprehension.

Evaluation and assessment:

Final evaluation includes:

- Attendance.
- Written and oral presentation of an own design project.
- All self-study assignments submitted.
- Final written test (min. 66% correct).
- Oral exam.

Psychology

Semester: II semester

Course Type: lectures and seminars exercises

Hours per Week/SS: 2 hours of per week / 2 hour exercises - 15 weeks

Credits: 3 credits

Lecturer:

Assoc. Prof. Maria Mutafova, PhD

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mariamutafova@swu.bg

Department:

Psychology,

Faculty of Philosophy

Status of the course: Compulsory

Description:

Bachelors acquire specialized theoretical competence in Psychology (General, Developmental and Educational psychology) course. The purpose of the proposed training is students to benefit from advances in world practice in General, Developmental and Educational psychology, and building skills to interpret data from empirical studies for application of appropriate methods of psychological diagnosis, research design and psychological characteristics of the interaction between teachers and students of varying ages. Competence, skills and research culture in Psychology is stimulated.

Teaching and assessment:

Teaching methods: lecture (introductory, traditional, summarizing, selective), discussion, exam training. The total credits in the course Psychology are equated to 100 units. The minimum relative share of achievements in independent work is 30% (30 units) and the maximum - 50% (50 units).

Registration for the Exam: coordinated with lecturer and Student Service Department.

Computer Graphics

Semester: II semester

Course Type: lectures and laboratory exercises

Hours per Week/SS: 2 lecture hours and 3 laboratory exercises hour per week

Credits: 5 credits

Lecturer:

Assoc. Prof. Evdokiya Panayotova Petkovd, PhD

E-mail:

e.p.petkova@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Course Description: The discipline is designed to introduce the students to the basic principles and methods for the construction and functioning of interactive computer graphics systems. The basic principles and approaches for visualization of two-dimensional 2D and 3D 3D objects (graphical applications) are discussed. Attention is also paid to the methods of building a graphical user interface. Students learn about the practical aspects, the principles of functioning of distributed computer graphics software products and acquire practical skills for working with them.

Course Aims: Course Aims: The aim of the course "Computer Graphics" is to build technical skills for the use of computer equipment as an aid to the realization of creative projects. To give the students the necessary theoretical knowledge and practical skills in the field of technological and artistic computer graphics.

Teaching Methods: lectures and laboratory.

Requirements/Prerequisites: Students have the knowledge and skills to the electronic components and structure of electronic systems work with application software.

Assessment: written final exam, two problems solving tests per semester,

Registration for the Course: by request at the end of the current semester.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Technological Training in Technical Measurements

Semester: II semester

Course Type: practical exercises

Hours per Week/SS: 2 hours exercises - 15 weeks

Credits: 3 credits

Lecturer:

Assist. Prof. Maia Angelova Stoeva, PhD

E-mail:

maia_angelova67@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Course Description:

The discipline Technological Training in Technical Measurements aims to introduce students to the technology of measuring different physical quantities and to form in the student's technical knowledge and skills for working with technical means, instruments and devices for measurement.

Course content:

Occupational safety and health instruction. Physical nature and characteristics of physical quantities. Types of technical means, instruments and measuring instruments. Measurement errors. Measurements of dimensions with linear Vernier. Measurement of dimensions by micrometric devices. Measurement of shape, layout and roughness of machine parts. Sizing by coordinate method. Measurement of thread parameters. Measurement of angles and cosines. Measurement of force. Measurement of mass. Measurement of pressure. Vibration measurement.

Teaching and assessment:

Students are introduced to the theoretical basis on the topic of the exercise, on the basis of which they realize the set practical assignments and tasks. Each practical exercise ends with the preparation of a protocol including a theoretical justification and a practical statement describing the practical work performed, the experimental data obtained and the conclusions drawn therefrom. For out-of-class work, students are assigned to develop course work on topics set by the teacher. The course work includes theoretical and practical part. The theoretical part provides a rationale for the topic under discussion and illustrates with appropriate images, diagrams, figures, etc. The practical part consists of preparing a presentation on the chosen topic. Assessment of the course is based on the completed course work, demonstrated knowledge and skills and active participation of the student in the

practical exercises. Credits for the discipline are a total of 3 - one credit for non-auditory employment and two credits for non-auditory employment. The total number of credits equals 100 conventional units. When the student's score is below 30, he / she receives a Poor 2.00 / E / score and no credits are awarded. Further preparation and examination for the course content during the semester is required. The examination consists of a written presentation of an exam topic and realization of a specific practical task.

Enrollment for the exam: Enrollment for the exam: in coordination with the lecturer and the teaching department in cases where students have received poor marks.

Technological Training in Agro- and Zoo Technologies

Semester: II semester

Course Type: practical exercises

Hours per Week/SS: 2 hours exercises - 15 weeks

Credits: 3 credits

Lecturer:

Assoc. Prof. Akulina Stefanova, PhD

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akstefanoffa@swu.bg

Department:

Economy,
Faculty of Economics

Course Status: Compulsory

Course Description:

Training on technology practice involves the acquisition of:

- Theoretical knowledge in the field of technologies for growing individual crops and the breeds and categories of animals;
- acquiring skills and habits for independent work and teamwork, and knowledge of modern eco-farming.

Course Aims:

The aim of the course is to acquire the necessary knowledge in the field of technologies for plant and animal breeding, as well as to get acquainted with the latest achievements in Bulgaria and the world.

Teaching Methods:

To provide quality education to students, the discipline "Agro-Zootechnics" combines different methods and forms of training, practical exercises and self-employment.

Requirements/Prerequisites: Students have the knowledge and skills to

The good absorption of the subject matter provided in the main topics of the present curriculum is conditioned by previous training in other subjects included in the curriculum of the specialty.

Assessment:

Overall assessment of current control, practical and independent work.

Registration for the Course: compulsory in the curriculum

Registration for the Exam: coordinated with lecturer and Student Service Department.

Materials science

Semester: II semester

Course Type: lectures and laboratory exercises

Hours per Week/SS: 2 lecture hours and 2 laboratory exercises hour per week

Credits: 6 credits

Lecturer:

Assoc. Prof. Valeri Vachkov, PhD

E-mail:

v.vatchkov@swu.bg

Department:

Electrical Engineering, Electronics and Automatics

Assist. Prof. Maia Angelova Stoeva, PhD

E-mail:

maia_angelova67@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Course Description:

Electronics, mainly the microelectronics currently is developing with exceptionally fast pace, mainly for the usage of computer industry (personal computers and microcomputers). This presupposes proactive development of the technologies for different materials and increasingly improvement of the processes of their obtaining and processing. Such materials are the semiconductors and metals, dielectric and magnetic materials, the various thin layers with interesting qualities and applications. The main objective of each specialist, teaching in the area of electronics, specifically the microelectronics and nano electronics is to establish a connection among the composition, structure and qualities of the materials in order to use them professionally in the creation of products of the electronic industry, communications and computer technology. The main exploitation characteristics of the electronic devices, such as degree of integration, speed of action, selectivity, photo sensibility, performance, depend on the clarity, the casting, defects in structure, the compatibility and quality of processing of the materials.

The subject is related to the courses in physics, semiconductor elements, electrical and electronic measurements, microprocessor technology.

Course content:

The object of the course is that the students acquire knowledge about the main methods for creation and processing of the various electric material, used in the modern electronic and computer devices.

Expected results: The students should have an overview of the processes and technologies of production of material for electronic components and electronic devices. They should be able to acquire abilities of independent drafting of specific technological processes. To acquire knowledge logically to analyze the data taken in the process of practice. Should be able to record the basic characteristics of various materials, to make independent conclusions after analysis in the course of practical exercises and to offer solutions – schemes or practical ones. To build knowledge and abilities to work experimentally and solve specific issues in the area of knowledge of materials and electronics.

Evaluation and assessment:

Ongoing control of each practical exercise. The aim of the ongoing control is to form responsibility in respect of the obligation of preliminary preparation, system work in education, forming of correct technological thinking, abilities to work with software and ability to work in a team.

Educational studies

Semester: II semester

Course Type: lectures and seminars exercises

Hours per Week/SS: 2 lecture hours and 2 hour exercises - 15 weeks

Credits: 5 credits

Lecturer:

Assoc. Prof. Lydia Tsvetanova-Churukova, DrS

E-mail:

lidycveta@swu.bg

Department:

Preschool and Primary School Pedagogy

Ass. Prof. Yanka Rangelova - Myron

E-mail:

yana.rangelova@swu.bg

Department:

Pedagogy,

Faculty of Pedagogy

Course Status: Compulsory

Course Description:

The understanding of main accents in modern science of education (particularly philosophy of education, theories of education and socialization and learning theory) is an essential part and the foundation of the professional competence of the future teachers, teaching at all levels and stages of the education system.

Course content:

Theoretical problems of education. Science and theory. Scientific research. Philosophy and methodology of science. Methods of scientific research in education. Branches of education science. System of education. Levels and spheres of education. Goals of education. Taxonomy of the educational goals. The role of the clubs in the work with gifted children and students. Approaches to education. The activity approach. The individual approach. The process-oriented approach. The Goal-oriented approach. The Competence approach. Education, socialization and development. Characteristics of development. Human development. Theories of development. Environment, development and education. Education, socialization and education. Socialization and identity. Factors and institutions of socialization. The role of teachers in education and development. Theories of education. Characteristics (referential meanings) of education. Education as a social phenomenon, system and process. Main characteristics and laws in the process of education. Out-of-school (extracurricular).

Evaluation and assessment:

The realization of the course is based on the basic ideas and principles of constructivism as a modern educational paradigm. The main principle is the one of setting a task within a certain situation. Practical situations are used to construct educational tasks to be completed with the help of ICT. The practice is organized and controlled through the use of a desktop visualization which allows the instructor to help students in all stages of their training. Students' achievements are regularly diagnosed through tests and practical assignments. The results are organized in a portfolio which is the basis of a summative assessment. The educational process is structured in a way that allows a transition from standard platforms for management of educational contents to system-based ones for sharing and creating of portfolio through the means provided by a shared environment.

Fundamentals of Electrical Engineering and Electronics

Semester: III semester

Course Type: lectures and laboratory

Hours per Week/SS: 2 hours of lectures per week / 2 hours exercises - 15 weeks

Credits: 5 credits

Lecturer:

Assoc. Prof. Eng. Vladimir Gebov, PhD

Email:

askon@swu.bg

Department:

Electrical Engineering, Electronics and Automatics

Assist. Prof. Maia Angelova Stoeva, PhD

E-mail:

maia_angelova67@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Course Description:

The OEE discipline contains of two modules:

The first one is "Fundamentals of Electrical Engineering". It introduces the students with the basic laws and physical phenomena in a wide range of the human knowledge – The use of electromagnetic phenomena. The basic passive and active elements of electrical circuits are given. A variety of electrical machines - their principle of operation, parameters, features and use are viewed. The second module is "Fundamentals of Electronics". It introduces the students with the basic building elements of Radio-electronic circuits and devices with their principle of operation and their structural features. The basic areas of the usage of semiconductor components and their defining parameters and features in static and dynamic mode are given

Course Aims:

The course objective „Fundamentals of Electrical Engineering and Electronics" is for students to acquire knowledge about the goals, objectives, and postulates problems in Fundamentals of Electrical Engineering and Electronics. To learn about basic systems for Fundamentals of Electrical Engineering and Electronics and the structure of the manufacturing, basic electronic circuits and devices.

Teaching Methods: lectures and laboratory.

Requirements/Prerequisites: Students have the knowledge and skills with basic knowledge of the physical, mathematical and computer science work with application software.

Assessment: written final exam, two problems solving tests per semester.

Registration for the Course: by request at the end of the current semester.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Educational Training in School

Semester: III semester

Course Type: practical exercises

Hours per Week/SS: three hours exercises - 15 weeks

Credits: 3 credits

Lecturers:

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Course Description:

Hospitality is an introducing form of practical pedagogical training for the students. It is organized by pedagogical groups attending basic pedagogical institution and include monitoring, examining in writing, analyzing and evaluating the main organizational forms of "Technologies and Entrepreneurship".

Course Aims:

Building a specific idea for the multidirectionality and complexity of the teacher's work, forming professional knowledge and interest of the teaching profession, establishing direct links between theoretical knowledge and specific educational reality, forming pedagogical analysis and evaluating skills and building basic competence for planning and guidance of learning processes of technologies and entrepreneurship.

Teaching Methods:

Explanation, pedagogical observation, conferencing, discussion, presentation, instruction, heuristic procedures, etc.

Assessment: Assessment is assured by an on-going evaluation. It is based on participation in the conferencing of the results of the monitoring of organizational forms, completing individual and group tasks, evaluation of the portfolio containing completed protocol forms, developed text materials, papers, analyzes, electronic products, etc.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department in the cases when the student has received an failing mark from the current control form and has covered minimum requirements.

Training in Electrical Engineering and Electronics

Semester: III semester

Course Type: practical exercises

Hours per Week/SS: 2 hours exercises - 15 weeks

Credits: 3 credits

Lecturer:

Assist. Prof. Maia Angelova Stoeva, PhD

E-mail:

maia_angelova67@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Description:

The discipline Training in Electrical Engineering and Electronics aims to form in students practical skills to read, depict and draw electrical circuits, to be able to measure the basic electrical quantities - current, voltage, resistance, power, electricity, to conduct demonstrations and experiments models of electrical circuits.

Course content:

Occupational safety and health instruction. Basic electrical quantities and laws. Implementation of demonstrations of Ohm's law and Kirchhoff's laws. Types of electrical circuits. Conditional graphic designations. Design and layout of circuits. Measurement of electric current. Measurement of electrical voltage. Measurement of electrical resistance. Measurement of electrical power. Measurement of electricity. Electrical circuits. Serial, parallel and mixed resistors. Lighting installation. Schemes of lighting installations. Realization of layout of lighting installation. Power installation. Power Schemes. Realization of layout of lighting installation. Signaling installations. Schemes of signaling installations. Implementation of a bell installation layout. Diodes. Photodiodes. LEDs. Rectangular connection of diodes. Transistors - bipolar, unipolar, MOS transistors. Design features of transistors. Four-layer semiconductor devices - device, purpose, principle of operation. Soldering of electronic components.

Teaching and assessment:

Students are introduced to the theoretical basis on the topic of the exercise, on the basis of which they accomplish the set practical assignments and tasks. Each practical exercise concludes with a protocol. For out-of-class work, students are assigned to develop course work on topics set by the teacher. The course work includes theoretical and practical part. The theoretical part justifies the topic and illustrates with appropriate images, schematics, figures. The practical part involves making a presentation on the chosen topic. Assessment of the course is based on the completed course work, demonstrated knowledge and skills and active participation of the student in the practical exercises. Credits for the discipline are a total of 3 - one credit for non-auditory employment and two credits for non-auditory employment. The total number of credits equals 100 conventional units. When the number of points of the student is below 30, he / she receives a low grade and passes the exam, which includes writing a question and writing a specific practical assignment.

Enrollment for the exam: Enrollment for the exam: in coordination with the lecturer and the teaching department in cases where students have received poor marks.

Didactic Prognosis and Modeling Part 1 and Part 2

Semester: IV, V semester

Course Type: lectures and practical exercises

Hours per Week/SS: 2 hours lectures/2 hours exercises – 30 weeks

Credits: 5 credits, 5 credits

Lecturer:

Prof. Sashko Plachkov, PhD

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Chief Assistant Lyubima Zoneva, PhD

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Assist. Prof. Vasilisa Pavlova Valeova, PhD

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vasy_pav@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Description:

The aim of the course is the students to gain knowledge about the theoretical and methodological bases and problems of forecasting and modeling in the private didactical system of scientific knowledge.

Course content:

Methodological foundations of didactic forecasting and modeling. Didactic prognostic system. Terms of didactic forecasting and modeling in the educational environment for teaching in technologies and entrepreneurship. Principles and methods of didactic forecasting and modeling.

Teaching and assessment:

The main interpreter of teaching is the interactive approach, students develop one abstract for each lecture module, set problematic tasks that they solve individually or in a team during the practical exercises.

Current control in the process of training with a weight 30% of the total score of the exam.

Examination procedure includes : presentation of development with practical tasks to represent the three main models of predicted activity - retrognosis , diagnosis and prognosis.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Technological Training in Mechanical Technologies

Semester: IV semester

Course Type: practical exercises

Hours per Week/SS: 3 hours exercises -15 weeks

Credits: 4 credits

Lecturer:

Assoc. Prof. Akulina Stefanova, PhD

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akstefanoffa@swu.bg

Department:

Economy,
Faculty of Economics

Course Status: Compulsory

Course Description:

Training on technology practice involves the acquisition of:

- knowledge of different materials (metal, wood, textile, plastic);
- skills for hand tools;
- acquaintance with the device of various machining machines.

Course Aims:

The aim of the course is to acquire specific technical and technological knowledge for the different materials, to form general productive and professional skills and habits, through practical tasks of polytechnic and production character.

Teaching Methods:

In order to provide quality education to the students, the subject "Mechanical Technologies" combines various methods and forms of training practical exercises and independent work.

Requirements/Prerequisites: Students have the knowledge and skills to The good absorption of the subject matter provided in the main topics of the present curriculum is conditioned by previous training in other subjects included in the curriculum of the specialty.

Assessment:

Overall assessment of current control, practical and independent work.

Registration for the Course: compulsory in the curriculum.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Pedagogical Training in Information and Communication Technologies in Education and Working in a Digital Environment

Semester: IV semester

Course Type: practical exercises

Hours per Week/SS: 3 hours exercises - 15 weeks

Credits: 4 credits

Lecturer:

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Course Description:

The discipline builds an idea of the technological and pedagogical tools for the realization of educational activity in a digital environment.

The education is aimed at improving the basic digital pedagogical competences of the trained students. Skills for digital information processing, use of educational web services, electronic communication, and creation of digital content are improved. It encourages digital didactic creativity. Students study how to work with advanced high-tech tools, products, and educational services. They explore innovative, computer-based educational technologies.

Course Aims:

Awareness of didactic capabilities of modern information and communication technologies. Improving skills for digital information processing, communication and ICT collaboration. Forming skills to create, enrich and manage a specific digital educational environment for technology and entrepreneurship education. Creative expression through digital media and technology. Familiarization with new training models. Forming skills to design and accomplish an educational process using modern technological tools and products.

Teaching Methods:

Explanation, demonstration, observation, presentation, exercises, modeling, discussions, case studies, project development, virtual object research, work on electronic educational platforms, etc.

Assessment:

The evaluation is done by making an ongoing assessment. Semester current control is realized during practical exercises in a computer environment. The final evaluation is based on the results of the two computer tests conducted during the semester, the results of the implementation of specific practical tasks by the students and the evaluation of the student portfolio.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department in the cases when the student has received an failing mark from the current control form and has covered minimum requirements.

Management of Educational projects

Semester: IV semester

Course Type: lectures and practical exercises

Hours per Week/SS: 1 hours lectures/2 hours exercises - 15 weeks

Credits: 4 credits

Lecturer:

Assoc. Prof. Diana Mitova, PhD

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didimitova2006@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Course Description:

By examination of the student discipline the students gain knowledge about its nature, specifications and main characteristics of management of projects, as well as they gain knowledge about planning, organization, preparation and realization of educational technological projects.

Course content:

- Technology of development and management of educational projects;
- The student project in its technological education – nature & specification of its realization.

Teaching and assessment:

The provided in the education program credits during the semester are gained through presence in lectures as well as practices, referrals to theoretical sources, participation in discussions, problem-solving and individual projects and materials about a presentation.

As a concluding procedure about grading, there is an examination. The final grade is formed by two individual works and projects presentations.

When organizing the grading, the level of knowledge is taken into consideration, as well as the systematic knowledge prove and creativity and attractiveness of projects.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department in the cases when the student has received an failing mark from the current control form and has covered minimum requirements.

Didactics of Technology Education Part 1 and Part 2

Semester: V, VI semester

Course Type: lectures and practical exercises

Hours per Week/SS: 2 hours lectures/2 hours exercises - 30weeks

Credits: 5 credits, 5,5 credits

Lecturer:

Prof. Sashko Plachkov, PhD

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pla4kov@swu.bg

Assoc. Prof. Diana Mitova, PhD

E-mail:

didimitova2006@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Course Description:

The course aims to introduce students to specific scientific problems of technological education in terms of educational traditions and trends of its development in the era of social globalization and digitalization.

Course content:

Specifics and management of the process of technological training. Content and ways of organizing the technological training. Nature of entrepreneurial projects and initiatives in schools and out of school environment. Principles and methods of training in technologies and entrepreneurship. Technological training through experience and entertainment.

Teaching and assessment:

Student learning is based on the use of interactive methods and approaches.

Current control in the process of training with a weight 30% of the total score of the exam.

Examination procedure includes: development of two practical tasks in one of the topics covered in the lectures.

Registration for the Exam:

Coordinated with lecturer and Student Service Department.

Teaching Practice at School

Semester: V, VI semesters

Course Type: practical exercises

Hours per Week/SS: 3 hours exercises - 30 weeks

Credits: 4credits, 4credits

Lecturer:

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The course is a basic form of practical pedagogical training conducted in a basic institution together with a teacher under the guidance of a university lecturer.

Practical sessions include lesson observations and other organizational forms of technologies and entrepreneurship education conducted by students, followed by a conference, covering analyzes, group discussions and discussions on the methodology and organization of the lesson, its effectiveness and optimization capabilities. Observations are thematically focused on certain pedagogical phenomena and research issues.

Course Aims:

The course provides conditions for acquaintance with professional pedagogical work with its inherent functions and activities, enrichment of the methodical preparation, adaptation to real professional activity and building of basic competencies for planning, organizing and realization of a learning process on technologies and entrepreneurship.

Teaching Methods: pedagogical observation, conference, discussion, debate, planning, modeling, exercises, creation of methodological portfolio, analyzes, etc.

Assessment:

On-going assessment. The assessment is based on the assessment of success rate from the lessons delivered during the semesters, participation in current conferences, implementation of individual and group tasks and assessment of the methodical portfolio.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department in the cases when the student has received a failing mark from the current control form and has covered minimum requirements.

Technological Training in Home and Service Technologies

Semester: V semester

Course Type: practical exercises

Hours per Week/SS: 3 hours exercises - 15 weeks

Credits: 3 credits

Lecturer:

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Description:

The course provides students with the knowledge and skills that build the common basis of technological competence in the field of household and service technologies. Through the use of different techniques, students acquire a sequence of operations to implement individual and group technology projects with elements of entrepreneurial initiative.

Course Aims:

The purpose of the course is to introduce students to the specifics of technology and entrepreneurship education by acquiring knowledge and initial practical skills related to household and service technologies and using the capabilities of modern information and communication technologies in everyday life and human environment. Competencies are being developed to plan and guide project-based technology and entrepreneurship training

Teaching Methods: practical exercises, observations, discussions, problem discussions, solving didactic problems, case studies, incidents, situational

modeling, debating on topics from specific educational issues of technological training, computer modeling, presentation, development of electronic portfolio.

Assessment:

The evaluation is done by making an ongoing assessment. Current control is based on the implementation of practical tasks; development and defence of technological projects, presentation of the project results and the developed electronic portfolio. Assessment criteria are at the level of: meaningfulness of knowledge, systematicity and activity in the task execution; initiative; asserting your own ideas and solutions; variety of decisions, creativity and creativity.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department in the cases when the student has received a failing mark from the current control form and has covered minimum requirements.

Methods of Developing Economic Culture in Technological Education

Semester: V semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15weeks

Credits: 5 credits

Lecturer:

Assist. Prof. Denitsa Bogdanska, PhD

E-mail:

dbogdanska@swu.bg

Department:

Management and marketing,
Faculty of Economics

Course Status: Compulsory

Description:

The methodology of the training is aimed at mastering basic concepts and forming basic skills for applying the economic culture in the social and business environment.

Course Aims:

Formation of an active life position regarding the ongoing economic processes in the society, development of the economic way of thinking and action in the family, in the economic relations, in the contemporary society, in the understanding of the basic principles of the economic life, etc.

Teaching Methods:

Explanation, lecture, case studies, discussion, self-employment.

Requirements/Prerequisites:

In order to establish the entrance level of the students, different methods are used, such as: discussion, practical case studies, written works by the students. According to the obtained results of the students' testing to determine their entry level, they adapt the content, the volume of the material and the teaching methods used.

Assessment:

Student assessment of the results achieved in the training process is in line with the requirements for the application of the credit transfer accumulation system.

Registration for the Course: the discipline is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Methods of Technologies and Entrepreneurship Training in Primary education

Semester: VI semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15 weeks

Credits: 5,5 credits

Lecturer:

Assoc. Prof. Diana Mitova, Ph. D

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Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The discipline is aiming at mastering of the methodological aspects of education in technologies in primary education. The educational content and the means of its implementation are adapted to the contemporary tendencies in technological education in the world and to the new vision of realization of such and education in Bulgarian primary education.

Course content:

First module: General educational problems: Scientific status of the methods. Characteristics of the contemporary didactic system in technological education in primary education. Books and handouts.

Second module: Specific methodological educational problem: Organizational forms of technological education. Didactical principles and methods in technological education. Process. Project-oriented technological education in primary education.

Teaching and assessment:

During classes, the education is taking place by lectures, practical exercises and school observations. Credits and grades are gained according to scenario playing of lessons in technology in primary education; the materials preparation for this scenario; presentation and defense of technological projects. For additional out-of-class work, the education level is attained by investigation of information sources, problem-solving, development of technological models and products, examples etc.

Credits turn into conditional units according to the following basis:

0,1 credits = 2 conditional units, 0,5 credits = 10 conditional units, 1 credit = 20 conditional units.

A final procedure for knowledge check is the written exam. When examination, several criteria are taken into consideration: degree of attained information in problems about technological education in high-school, consistency of knowledge and creativity and improvisation in project presentations.

Registration for the Course: the discipline is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Technical Modeling

Semester: VI semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15weeks

Credits: 5 credits

Lecturer:

Assoc. Prof. Eng. Stoysho Stefanov, PhD

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sstephanoff@swu.bg

Assist. Prof. Emilia Tosheva, PhD

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Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The course on "Automation of electronic manufacturing" introduces students to the tasks solved by

To acquaint students with the technical modeling, life cycle stages - technical and artistic design and design, techniques for technical creativity and rationalization, the forms of design and modeling training, the stages of solving technical creative tasks, etc.

Course Aims:

Students are familiar with the basic concepts of technical modeling, with the necessary material and technical base, construction materials, etc.

Teaching Methods: lectures and practical exercises

Requirements/Prerequisites:

The good absorption of the subject matter provided in the main topics of the present curriculum is conditioned by previous training in other subjects included in the curriculum of the specialty.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Methods of Vocational Guidance

Semester: VI semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15weeks

Credits: 5 credits

Lecturer:

Assoc. Prof. Dimitar Iskrev, PhD

E-mail:

iskrev@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The course is aimed at developing psychological and pedagogical foundation of vocational guidance as integrative social activity. Consider the technology career through social and educational institutions.

Course content:

On defines the purpose, objectives and aspects of vocational guidance. It reveals dynamics of the guidelines for the institutionalization of the idea of vocational guidance. Outlines the specialized activities of vocational guidance. On indicate practical approaches, principles, methods and stages of career guidance as social educational process.

Teaching and assessment:

Theoretical training for the course is combined with practical exertions in which the students' knowledge is specified on a practical level. Training of the course then concludes with assessment determined by the current control (for lectures and practical exercises), the implementation of course assignments and the results of control classes.

Rating Scale: when collected up to 50 measurement points - rating: Poor (2) when collected from 51 to 60 points - rating: Medium (3), when collected from 61 to 75 points - rating: Good (4), when collected from 76 to 90 points - rating: Very Good (5), when collected from 91 to 100 points - rating: Excellent (6).

If the student does not collected required number of units to obtain the credit, the teacher assigns additional tasks - writing an essay, bibliography, plan syllabus and more, for be able to attend the examination session.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Methods of Technologies and Entrepreneurship Training in Secondary education

Semester: VII semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15weeks

Credits: 6 credits

Lecturer:

Assoc. Prof. Diana Mitova, PhD

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didimitova2006@swu.bg

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The discipline is aiming at mastering of the methodological aspects of education in technologies in the high-school stage. The educational content and the means of its implementation are adapted to the contemporary tendencies in technological education in the world and to the new vision of realization of such and education in Bulgarian high-schools.

Course content:

First module: General educational problems: Scientific status of the methods. Characteristics of the contemporary didactic system in technological education in high-school. Books and handouts.

Second module: Specific methodological educational problem: Organizational forms of technological education. Didactical principles and methods in technological education. Project-oriented technological education in high-school.

Teaching and assessment:

During classes, the education is taking place by lectures, practical exercises and school observations. Credits and grades are gained according to scenario playing of lessons in technology in high-school; the materials preparation for this scenario; presentation and defense of technological projects.

For additional out-of-class work, the education level is attained by investigation of information sources, problem-solving, development of technological models and products, examples etc.

Credits turn into conditional units according to the following basis:

0,1 credits = 2 conditional units, 0,5 credits = 10 conditional units, 1 credit = 20 conditional units

A final procedure for knowledge check is the written exam. When examination, several criteria are taken into consideration: degree of attained information in problems about technological education in high-school, consistency of knowledge and creativity and improvisation in project presentations.

Registration for the Course: the discipline is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Technologies for Teachers' Career Development

Semester: VII semester

Course Type: lectures and practical exercises

Hours per Week: 2 hours of lectures / 2 hours exercises - 15weeks

Credits: 6 credits

Lecturer:

Assoc. Prof. Dimitar Iskrev, PhD

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iskrev@swu.bg

Assist. Prof. Emilya Tosheva, PhD

Email:

emilia_tosheva@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Description:

The course is aimed at learning the organizational foundations of career development of teachers as public deterministic and integrative process.

Course content:

Define the essence, aspects and classification of occupations. On indicate modern approaches, models and stages of a career as a social personal process. On reveals the dynamics of the main scientific and theoretical concept for career behaviour of the individual. On outlines psychological determinants and regularities career development, social and personal factors in the selection of teaching profession and career. Consider the technology of recruitment and career development in education.

Teaching and assessment:

Theoretical training for the course is combined with practical exertions in which the students' knowledge is specified on a practical level. Training of the course then concludes with assessment determined by the current control (for lectures and practical exercises), the implementation of course assignments and the results of control classes.

Rating Scale: when collected up to 50 measurement points - rating: Poor (2) when collected from 51 to 60 points - rating: Medium (3), when collected from 61 to 75 points - rating: Good (4), when collected from 76 to 90 points - rating: Very Good (5), when collected from 91 to 100 points - rating: Excellent (6).

If the student does not collect required number of points to obtain the credit, the teacher assigns additional tasks - writing an essay, bibliography, plan syllabus and more.

Registration for the Course: the discipline is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Technology of Project-based technology training

Semester: VII semester

Course Type: lectures and practical exercises

Hours per Week: 1 hours of lectures / 2 hours exercises - 15weeks

Credits: 4 credits

Lecturer:

Assoc. Prof. Diana Mitova, PhD

Email:

didimitova2006@swu.bg

Department:

Technical Education and Professional Education,

Faculty of Engineering

Course Status: Compulsory

Description:

The course "Technology of Project-based Technological Education" is a compulsory pedagogical discipline, by which the students acquaint themselves with the specifics and basic characteristics of the project-based technological training. They master the algorithm and the main stages of designing learning technology projects. Students acquire the necessary methodological culture in the field of project management, assimilate principles and methods for organizing project-based training.

Course content:

The curriculum is structured in two modules and the students receive theoretical, methodological and practical preparation for the management and management of training projects, from the technological framework of the technological training. In the discipline, priority is given to self-study in the course of project development.

Teaching and assessment:

The credits provided in the curriculum are recruited through the presence of lectures and practical exercises, reference of theoretical sources, current developments accompanying the preparation of school technological projects and presentation materials. Forms of credit collection are involved in discussions and discussions, self-collecting, processing and presenting the information needed to develop group and individual projects on technology and entrepreneurship.

The exam consists of a written exam, developing a theoretical question and presenting an individual technological project, thematic oriented towards the content of the technological training. The assessment takes into account students'

ability to briefly, accurately and clearly present the required information and presentation skills.

Registration for the Course: the discipline is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service Department.

Pedagogical Training in Inclusive Education

Semester: VII semester

Course Type: exercises

Hours per Week/SS: two hours exercises - 15 weeks

Credits: 2 credits

Lecturer:

Chief Assistant Lyubima Zoneva, PhD

E-mail:

zoneva@swu.bg

Department:

Technical Education and Professional Education,
Faculty of Engineering

Course Status: Compulsory

Course Description: The discipline is aimed at enriching the pedagogical competencies of future teachers of technology and entrepreneurship towards inclusive pedagogy. The learning process is oriented towards understanding the philosophy of inclusive education, learning concepts and models, mastering instrumental tools for implementing inclusive education. Skills for creating an inclusive school learning environment, choosing inclusive strategies and approaches, planning and applying pedagogical design for technology and entrepreneurship training to support the personal development of trainees are being mastered.

Course Aims:

The aim of the subject "Pedagogical Training in Inclusive Education" is to form positive attitudes and readiness to apply inclusive practices in technology and entrepreneurship education and in extracurricular and out-of-school forms that build technological and entrepreneurial training.

Teaching Methods:

Explanations, discussion, computer presentations, case studies, analysis of literary sources, documents, programs, etc., comparative analysis, observations, video study, empirical research, data processing, modeling, cognitive exercises, tests, interactive methods training

Assessment:

Ongoing assessment. It is based on an assessment of participation in the exercises, results of tests conducted and evaluation of the developed portfolio.

Individual participation in the discussions, case studies, studies and demonstrated skills for teamwork is considered. Portfolio is evaluated on the basis of content and outline of included pedagogical studies, referrals, analyzes, developed programs and models for project-based inclusive education in the field of technology and entrepreneurship training and other set-up solutions. Criteria for assessment are levels of competence, analytic, critical, understanding, communicative, teamwork and creative thinking.

Registration for the Course: course is mandatory.

Registration for the Exam: coordinated with lecturer and Student Service.

