Course Title: BIOLOGY WITH ECOLOGY
Teacher: Gordana Dražić, full professor
Course Status: compulsory
ECST Value: 8
Prerequisite: /

Course Goals and Objectives: enabling students to understand and apply the basic principles of ecology as primarily biological, but essentially multidisciplinary science through introduction of synergistic and antagonistic relationships between living organisms and the environment.

Course Outcomes
Students are enabled to independently or as members of a team critically analyse phenomena in the living world in correlation with environmental factors, to recognize basic forms and adaptations of animal and plant organisms, their tissue and organs, as well as to understand the way ecosystems function through energy flow and circulation of matter. They are also enabled to communicate their observations in various forms.

Course Content
Theory
Biology and ecology within the system of science, ecology and environmental science; levels of life organisation on the Earth; basics of cytology, structure and function of the cell and cell organelles; inheritance in the living world, mutations, environment impacts; animal tissues, organs and organ systems; plant tissues and organs; systematics and taxonomy; populations, anthropogenic impacts on population numbers; communities; ecological factors and adaptations to the environment; ecosystems, structure and function, biogeochemical cycles; biomes, distribution, productivity and anthropogenic impacts; theory of evolution

Practice
Introduction to the basics of biology with the use of video presentations. Laboratory classes: microscoping of permanent preservatives, morphology of animal organs, morphology of plant organs, plants development – impacts of abiotic ecological factors (temperature, light and water). Keeping a laboratory diary. Field work: a study visit to the preserved, degraded, and anthropogenic ecosystems and writing reports, perfecting academic skills of presentation through project assignments.

Primary and Secondary Sources Selection

Active Teaching Hours: 6
Theory: 3
Practice: 3

Applicable Teaching Methods
Lectures, practice, field work, presentations and discussions, mid-term exam, projects, exam.

Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: QUANTITATIVE METHODS
Teacher: Dejan Živković, PhD, full professor

Course Status: compulsory

ECST Value: 8
Prerequisite: /

Course Goals and Objectives
The basic goal is for students to revise highschool mathematics and to get acquainted with some new notions. The needed systematization of mathematical knowledge necessary for the competence in contemporary IT systems and their use.

Course Outcomes
Mathematics is the fundamental subject for further study of different teaching areas such as engineering, computing, information technology, software engineering, data analysis, system control, and many others.

Course Content
Theory

Practice
Laboratory exercises that follow theoretical content using the MATLAB or OCTAL software tool.

Primary and Secondary Sources Selection

Active Teaching Hours: 6
Theory: 3
Practice: 3

Applicable Teaching Methods:
Lessons, mathematical and laboratory exercises.

Grading Scheme (max. 100 points)

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</table>
Course Title: ENVIRONMENTAL MANAGEMENT AND ENVIRONMENTAL POLITICS
Teacher: Vladimir Džamić, PhD, full professor
Course Status: compulsory
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
To get the students acquainted with the possibilities in the environmental management, subjects in creation of ecological policies and its practical use at the national level. Also, the aim of this subject is for students to realize in which way subjects contribute to changes in the area of ecological policy, at the global, national, but also local level; in which way the institutional decisions are being made in the area of the environmental protection at the state level. Students will have the opportunity to see how popular culture can function as the instrument of ecological policy in the 21st century.

Course Outcomes
It is expected that students will be able to: understand sources and subjects of the ecological policy, understand the way in which environment is managed, recognize the crucial challenges in the creation and implementation of ecological policy in practice. Students will learn how the institutional mechanism of decision-making in the area of environment and ecological policy functions in practice, and in which way successful planning, organization, management and implementation of decisions in the area of the environmental protection should be reached.

Course Content
Theory
Globalization and the ecological crisis – socio-economic reasons for the ecological crisis in the 21st century. The demographic explosion and the ecological risks. The answer to the ecological crisis – the emergence of social and political movements as the answer to ecological challenges in the world; ecological political activism. Environmental policy entities in the 21st century. The state and the ecological policy; the executive power and its role in the creation of public policies in the area of environmental protection. Independent regulatory bodies and the environmental protection in the Republic of Serbia. “Green” political parties in Europe and the world as subjects of the ecological politics. Vertical distribution of power and the environmental protection – the role and significance of the local self-government. Popular culture and the strengthening of environmental awareness: art and environmental policy. Ecological propaganda.
Practice
Globalization, globalism and a hazardous society. Demographic factors which influence the violation of environmental balance. The practical exercise – the creation of public policies in the environmental protection area. The simulation of the institutional activities which are main subjects of the ecological policies creation. The role of agencies and other independent regulatory bodies as the fourth branch of public government in environmental protection. The comparative analysis of the ecological policies of the Republic of Serbia and other states in the region as well as with the EU. The analysis of the ecological propaganda key messages in the 21st century.

Primary and Secondary Sources Selection

Active Teaching Hours: 6
Theory: 3
Practice: 3

Applicable Teaching Methods:
Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

Grading Scheme (max. 100 points)

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</table>
Course Title: INFORMATICS
Teacher: Marko Sarac, PhD, associate professor
Course Status: compulsory
ECST Value: 6
Prerequisite: /

Course Goals and Objectives
Introduction to the basics of application software, hardware and software basics of contemporary computer system, as well as to the phenomenon of networking and Internet. Introduction to the field of informatics with the examples in application software, computer networks, security, multimedia. In practical laboratory exercises, students acquire basic computer literacy regarding operating systems, implementation of programme for text processing and Internet usage.

Course Outcomes
Gaining theoretical and practical knowledge about hardware, operating systems, application softwares, the usage of e-mails and Internet and introduction to contemporary information communication technologies.

Course Content

Theory
Hardware in computers; Hardware basics- peripheries; Software basics, Business applications basics, Graphics; Digital media and multimedia; Midterm I- working with files; Word; Image processing and computer vision; Databases; Computer networks and telecommunications; Safety and risks; Internet and WWW; Midterm II- Excel, Visual Basics; Business information systems; Electronic trade.

Practice
Practical courses are conducted in electronic classrooms, where students are introduced to application software and solve tasks in order to get to know necessary software tools for computer literacy. Learning about the functions of application software for text processing (Word), application software for table processing (Excel) and application software for preparation and presentation of certain data (PowerPoint).

Primary and Secondary Sources Selection

Active Teaching Hours: 3
Theory: 2
Practice: 1

Grading Scheme (max. 100 points)

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</table>
Course Title: GEODIVERSITY
Teacher: Boris Vakanjac, PhD, associate professor
Course Status: compulsory
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
Acquiring knowledge about planet Earth and its characteristics. Understanding endogenous and exogenous processes which form changes on the inside of the planet and on the surface (lithosphere). Introduction to terms such as geodiversity, fields of geology and the importance of rock foundations as the foundations of everything existing on Earth. Understanding the continuity of change triggered by tectonic of plates, occurrence of earthquakes, volcanoes and rock masses. Gaining skills regarding recognizing the objects of geodiversity which are of significance for environmentalism and for saving the humankind.

Course Outcomes
Enabling students to observe and determine geological characteristics of space. Acquiring knowledge about the causes of constant changes on planet Earth. Recognizing geological processes and objects which are significant for environmentalism and sustainable development during valorization of renewable and non-renewable resources triggered by endogenous and exogenous processes. Preserving geological objects for the sake of education and economic valorization.

Course Content
Theory

Practice

Primary and Secondary Sources Selection

Grading Scheme (max. 100 points)

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<td>Active Teaching Hours: 5</td>
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Applicable Teaching Methods:
Lectures, practice, seminar papers with presentation, interactive discussion, midterms, written exam
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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: BASICS OF CHEMISTRY AND BIOCHEMISTRY
Teacher: Milena Rikalović, assistant professor
Course Status: compulsory
ECTS Value: 8
Prerequisite: /

Course Goals and Objectives are for students to be introduced to the basic concepts and principles in the field of chemistry and biochemistry that enable them to attend courses in the senior years of study from related fields and to acquire the ability to quantify chemical problems. Students will be introduced to the laboratory work and basic methods of general chemistry.

Course Outcomes
Students will master the basic knowledge in general chemistry and biochemistry necessary for understanding the chemical processes in the environment, relation between structure and function of pollutants/biomolecules, mechanisms of pollutants interaction with the ecosystem and living systems, and pollution monitoring. Students will master the basics of laboratory work and gain the appropriate experimental skills.

Course Content
Theory
Chemistry and biochemistry as sciences and their historical development; materials, pure substances and mixtures; molecular chemistry, periodic table of elements; stoichiometry; chemical bonds – ionic, covalent, coordinate, and metallic intermolecular bonds; water – structure and properties; pH, importance for living systems; solutions and concentration; speed of chemical reaction; acids and bases, buffer systems; organic and inorganic compounds; electrochemistry: oxide-reduction reactions; cell, metabolism, homeostasis; carbohydrates, glycolysis. Pentosephosphate pathway and gluconeogenesis. Glycogen metabolism; lipids and fatty acids metabolism; proteins: structure and function; nucleic acid, enzymes and mechanisms of their effects; transformation and degradation of pollutants; instrumental methods in chemistry and biochemistry; the importance of chemistry and biochemistry for the environment.

Practice
Calculation classes: electron configuration of atoms; relative molecular weight; stoichiometry; concentration and solutions; chemical equations; pH of solutions and buffers; hydrolysis and oxidation-reduction reaction.
Laboratory classes: work in a chemical lab; laboratory glassware and equipment; measuring liquid volume and the mass of substances; sampling; preparation and standardization of solutions, dilution; mixtures and filtration; pH and indicators; preparing buffer solutions. Isolation of DNA.

Primary and Secondary Sources Selection
Selected chapters:

Active Teaching Hours:  5
Theory:  3
Practice:  2

Applicable Teaching Methods
предавања, рачунске и лабораторијске вежбе, радионице, колоквијуми, писмени испит

Grading Scheme (max. 100 points)

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<td>Course Title: BASICS OF ECONOMICS</td>
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<td>Teacher: Sanja Filipović, PhD, full professor</td>
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**Course Goals and Objectives**
The aim of this course is to introduce students to the basics of microeconomics and macroeconomics.

**Course Outcomes**
After completing the course, students will develop the analytical and practical thinking skills owing to the understanding of economics concepts, categories, dimensions and their correlation.

**Course Content**

*Theory*
Economics as a science; Basic principles and models of economics; Supply and demand; The concept of elasticity and its application; Market imperfections; Revenue, costs, profit; A company conduct on the market; Financial system and crises; Business Cycles - economic growth, inflation, unemployment; Macroeconomic models; Monetary and fiscal system; The economics of an open economy - balance of payments and exchange rate; The challenges of the global economy development.

*Practice*
A review of essential economic schools of thought; The application of economic principles and models; The analysis of supply and demand; The calculation of elasticity coefficients; The problem of public goods and externalities; The analysis of the expenses; Profit analysis depending on the type of market - competitive market, monopoly market; oligopoly market; monopolistic competition; Banks and financial markets; The analysis of essential macroeconomic indicators; Monetary and fiscal policy; Balance of payments analysis; Types of exchange rates; The analysis of contemporary issues in economics.

**Primary and Secondary Sources Selection**


**Active Teaching Hours**: 5  |  **Theory**: 3  |  **Practice**: 2

**Applicable Teaching Methods:**
lectures, practice, project task, case study;

**Grading Scheme (max. 100 points)**

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</table>
Course Title: ENGLISH LANGUAGE 1

Teacher: Jelena Prsic, PhD

Course Status: compulsory

ECST Value: 6

Prerequisite: /

Course Goals and Objectives

The Course aims at improving students’ skills and competences as regards both receptive and productive language skills – while, at the same time, levelling their knowledge at B2 CEFR level. In this way, the Course intends to enable students to communicate in different language contexts and for different purposes.

Course Outcomes

Upon completing the Course, students are capable of understanding and transmitting the intended messages in English. In that communication process – students exhibit the knowledge of language belonging to B2 CEFR level – in terms of writing, speaking, listening and writing. Moreover, they are pragmatically aware of specific needs in different language contexts.

Course Content

Grammar-related Units

Present Simple and Continuous, Stative verbs, Articles, Present Perfect Simple and Present Perfect Progressive, Countable and uncountable nouns; Quantifiers, Past Simple and Past Progressive, Used to, Would, Past Perfect Simple and Past Perfect Progressive, Would, was/were going to, Future forms, Time clauses, Modal Verbs, Passive Voice

Lexical Units

Word building: adjective suffixes, noun suffixes; Colour idioms, verbs starting with re-, Sports idioms, Phrasal verbs related to travel, Compound adjectives describing character traits, Idioms with parts of the body, Compound adjectives describing character traits, idioms with parts of the body, phrases and collocations related to education and learning; ESP: Environmental Issues, Eco Awareness, Green Eating, Recycling

Primary and Secondary Sources Selection

3. Murphy, R. English Grammar in Use (Book with answers and Interactive ebook), CUP, 2015

Active Teaching Hours: 6

| Theory: 4 | Practice: 2 |

Applicable Teaching Methods:
Interactive lectures – gamified and collaborative teaching/learning, humanistic and personalized methods, language skills’ assessment, tests, midterm exams, written and oral exam
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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: SOCIAL ECOLOGY AND SUSTAINABLE DEVELOPMENT

Teacher: Mesud R. Adžemović, PhD, assistant professor

Course Status: compulsory

ECST Value: 8

Prerequisite: /

Course Goals and Objectives
To provide the students with basic knowledge on categories regarding pollution problems and ecological crisis, causes of the ecological crisis, issues related to usage and exploitation of natural resources, ethical aspects of ecology, population growth and development's influences on the environment, understanding the complex relationship of society and environment, as well as to qualify the students to produce Local Sustainable Development Programmes.

Course Outcomes
Students will be qualified to recognize modern ecological problems, to identify their causes, consequences and the ways to solve them, as well as to actively participate by critically analyzing modern socio-ecological problems, bearing in mind their complexity and mutual dependence on other social problems, to analyze and generalize their relationships in the complex systems like environment-society, environment-society-technology-ecology.

Course Content
Theory

Practice
Case study analysis with a goal to point out tendencies of indolent, economically and ecologically unsustainable development and lifestyle. Presentations of student’s research papers.

Primary and Secondary Sources Selection

Active Teaching Hours: 5
Theory: 3
Practice: 2

Applicable Teaching Methods:
Lectures, practice, research papers, case study analyses, interactive discussion, mid-term exams, oral exam.
Student’s work is performed during classes and in the oral part of the exam.

Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: BIODIVERSITY PRESERVATION
Teacher: Gordana Dražić, PhD, full professor/Jelena Milovanović Radosavljević, PhD, full professor
Course Status: compulsory
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
Students will be acquainted with the essence, definition, levels, manifestations, significance, state and vulnerability of biodiversity, as well as the methods of its preservation.

Course Outcomes
The acquired knowledge concerning biodiversity, its global scientific and practical significance from the point of the biosphere preservation and the mankind survival, as well as the skills of vulnerability assessment, preservation and conservation through contemporary concepts of the active and passive conservation.

Course Content
Theory

Practice
Study research work at the production of strategy and in-situ programme of conservation and improvement of species or genetic resources for the defence of vegetative and/or animal species, by using the concept “use it or lose it”.

Primary and Secondary Sources Selection

Active Teaching Hours: 6
Theory: 3
Practice: 3

Applicable Teaching Methods:
Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

Grading Scheme (max. 100 points)

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### Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

**Course Title:** SELECTED CHAPTERS OF PHYSICAL CHEMISTRY

**Teacher:** Svetlana Stanisic, full professor

**Course Status:** Compulsory

**ECST Value:** 7

**Prerequisite:** /

#### Course Goals and Objectives

The objective of the course is to introduce students to the basics and significance of complementary physicochemical disciplines, understanding the laws, processes and conditions in the environment.

#### Course Outcomes

It is expected that students will be able to understand physicochemical processes whose impacts significantly reflect the hemodynamics of pollutants in environmental media (water, air, soil), the condition and activity of abiotic factors, and their dynamic interaction with biotic components in the environment.

#### Course Content

**Theory**


**Practice**


#### Primary and Secondary Sources Selection


#### Active Teaching Hours: 5

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#### Applicable Teaching Methods:

- Lectures, interactive discussion, laboratory classes, demonstration, calculation exercises, knowledge testing, office hours, midterm exams, the oral exam.

#### Grading Scheme (max. 100 points)

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</table>
**Study Programme:** Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT  
**Course Title:** NATURAL HAZARD  
**Teacher:** Boris Vakanjac, PhD, associate professor  
**Course Status:** compulsory  
**ECST Value:** 6  
**Prerequisite:** /  

### Course Goals and Objectives
The aim of the course is to have students acquire knowledge about natural phenomena originating in outer space or on planet Earth, which can lead to human casualties, material damage or, in extreme cases, lead to the complete destruction of civilization, as well as to affect the life as we know it. Familiarizing with places wherein such occurrences are more often. Understanding the origin of hazardous - catastrophic phenomena throughout history and today. The reaction of society and services to natural hazard incidents.

### Course Outcomes
Understanding the phenomena that are potentially dangerous to human and all living beings on planet Earth. Understanding the frequency of hazardous phenomena throughout life history on planet Earth. Monitoring of cosmic hazards. Monitoring of critical control points e.g. earthquakes and volcanoes. Study of specific hazardous situations.

### Course Content

#### Theory

#### Practice

### Primary and Secondary Sources Selection
2. Wisner B., Blaikie P., Cannon T., Davis I., 2003.: At Risk Natural hazards, people’s vulnerability disasters. UNDP

### Active Teaching Hours
- **Theory:** 2
- **Practice:** 2

### Applicable Teaching Methods:
lectures, practice, seminar paper with presentation, interactive discussion, mid-term exams, written exam
## Grading Scheme (max. 100 points)

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<th>Pre-exam Requirements</th>
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</tbody>
</table>
Course Title: ENVIRONMENTAL LAW

Teacher: Marija Kostic, PhD, associate professor

Course Status: compulsory

ECST Value: 8

Prerequisite: /

Course Goals and Objectives
The objective of this course is to introduce students to basics and beginning of environmental law, sources and subjects of environmental law and its implementation on the national level.

Course Outcomes
After finishing this course, students will be able to: understand sources and subjects of environmental law, understand the challenges in the implementation of environmental law in practice and implementation of acquired knowledge in practice in contemporary business organizations.

Course Content

Theory

Practice
Legal instruments of environmental protection: environmental ombudsman, environmental inspection, environmental law suit, environmental taxes. Environmental crimes. The right of the public to be informed about environmental issues: the implementation of Aarhus convention. Entering the European Union and challenges in the field of environmentalism: Chapter 27.

Primary and Secondary Sources Selection

Active Teaching Hours: 5
Theory: 3
Practice: 2

Applicable Teaching Methods:
Lectures, interactive discussions, consultations, midterms, oral exam

Grading Scheme (max. 100 points)

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<p>| Attendance and in-class Activity | 10 | Written part | 30 |
| Practice | | Oral Part | |
| Mid-term Exams/Tests | 60 | | |
| Other Assessment Items | | | |</p>
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<th>Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT</th>
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</thead>
<tbody>
<tr>
<td><strong>Course Title:</strong> SUSTAINABLE MANAGEMENT OF WATER RESOURCES</td>
</tr>
<tr>
<td><strong>Teacher:</strong> Boris Vakanjac, PhD, associate professor</td>
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<tr>
<td><strong>Course Status:</strong> compulsory</td>
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<td><strong>ECST Value:</strong> 8</td>
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<td><strong>Prerequisite:</strong> /</td>
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**Course Goals and Objectives**

The aim of the course is to introduce students to the concept of integrated water resources management and teach them to identify and analyze driving forces, pressures and state of water resources, as well as to plan adequate responses of the society to existing problems. Through theoretical and practical learning, students will acquire active knowledge and skills for using the instruments needed for planning the management of sustainable water resources.

**Course Outcomes**

Students will be able to assess the situation and devise plans for sustainable water resources management at local, national and transnational levels, taking into account current and future challenges faced by the Water Sector, including the impact of climate change on the availability of water resources. Based on the acquired knowledge and analytical skills, students will be able to independently prepare the Water Security Action Plan.

**Course Content**

*Theory*

- The concept of integrated water resources management; EU Directives governing the Water Sector; Strategic and legislative basis for water resources management in Serbia; Existing institutional system and responsibilities;
- Financing of water resources management; DPSIR framework for water resources management planning; Pressure on water resources: Organic pollution – non-point and point; Pollution by hazardous substances; Hydromorphological changes; Pressure on the quantity of surface water and groundwater - use of water in agriculture, industry, households; Pressures and impacts on the quality and quantity of sediment; Invasive species; Water quality monitoring and information management; Assessment of ecological and chemical status of waters; Water safety; An example of good practice: The Danube River Basin Management Plan.

*Practice*

Drawing up of the Water Security Action Plan. Study tours of the institutions monitoring the status of water management planning in Serbia.

**Primary and Secondary Sources Selection**


**Active Teaching Hours:** 5  
**Theory:** 3  
**Practice:** 2

**Applicable Teaching Methods:**

Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

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</table>
**Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

**Course Title:** HEALTH AND ENVIRONMENT  
**Teacher:** Svetlana Stanišić, PhD, full professor  
**Course Status:** mandatory  
**ECST Value:** 8  
**Prerequisite:** /

**Course Goals and Objectives**  
The aim of this course is to introduce students to the consequences of the environment on human health.

**Course Outcomes**  
Upon completion of this course, students will be able to understand all the aspects of the environmental impacts on health.

**Course Content**

*Theory*
The growth and geographical distribution of the urban population in the 20th and 21st centuries. The population living in poor socio-economic conditions in modern cities. The relationship between obesity, chronic, massive, non-communicable diseases, and sedentary lifestyle. The sport and recreational activities in modern conditions. The air pollution in the urban environment. The noise and vibration in the urban environment. The significance of the green area in the urban environment. The mental health of the inhabitants. The air temperature in densely populated areas. The infectious diseases in the urban environment. Seasonality in human mortality. The cumulative effects of unfavorable working conditions.

*Practice*
The health effects of short-term and long-term exposure to high concentrations of pollutants in the air and the mortality due to the poor air quality. The pollution of urban environments in the countries of the first and third world. The urban environment day and night noise levels and the health effects of the continuous exposure to high ambient noise levels. The nutrition in pre-school, school and social care facilities. The use of processed food. The effect of the thermal island and the ecological and health consequences of this phenomenon. The specific risks in individual workplaces and occupational safety.

**Primary and Secondary Sources Selection**


**Active Teaching Hours:** 5  
Theory: 3  
Practice: 2

**Applicable Teaching Methods:**
Lectures, practice, seminar and project work, case study analysis, simulation, interactive discussion, mid-term exams, written exam.

**Grading Scheme (max. 100 points)**

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</table>
Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ENGLISH LANGUAGE 2
Teacher: Jelena Prsic, PhD
Course Status: compulsory
ECST Value: 6
Prerequisite: /

Course Goals and Objectives
English Language 2 is a Course that follows the English Language 1 course – i.e. its form and content. The Course aims at enhancing students’ skills and competences regarding all the language skills – while, at the same time, levelling their knowledge at B2 CEFR level. In this way, the Course intends to enable students to communicate in different language contexts and for different purposes, as well as to make them more confident in the process.

Course Outcomes
Upon completing the English Language 2 Course, students are capable of understanding and transmitting the intended messages in English in a confident manner. In that communication process – students exhibit the knowledge of language belonging to B2 CEFR level – in terms of writing, speaking, listening and writing. Moreover, they are pragmatically aware of specific needs in different language contexts.

Course Content

Grammar-related Units
Relative Clauses, Participle Clauses, Conditional Sentences Types 2,3, Unreal Past, Infinitives and ing-forms, Causative form, Reported Speech, Clauses of purpose, result and concession, Comparisons, Inversion, All/both/neither/none/either, Double conjunctions

Lexical Units

Primary and Secondary Sources Selection

3. Murphy, R. English Grammar in Use (Book with answers and Interactive ebook), CUP, 2015

Active Teaching Hours: 6
Theory: 4
Practice: 2

Applicable Teaching Methods:
Interactive lectures – gamified and collaborative teaching/learning, humanistic and personalized methods, language skills’ assessment, tests, midterm exams, written and oral exam

Grading Scheme (max. 100 points)

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**Study Programme:** Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

**Course Title:** FOOD WASTE MANAGEMENT

**Teacher:** Nataša Kilibarda, assistant professor

**Course Status:** compulsory

**ECST Value:** 6

**Prerequisite:** /

**Course Goals and Objectives**
To acquire the knowledge on food losses and food waste throughout the food supply chain, on factors that cause the waste to be produced and possible consequences on environment and food safety.

**Course Outcomes**
The course outcome is to enable students to identify the spots throughout the food supply chain in which the amount of produced waste can be reduced, as well as to understand the measures taken to manage the food waste more effectively in food industry, catering and household.

**Course Content**

*Theory*

*Practice*
- Food waste disposal – advantages, disadvantages, expenses, effectiveness. Case study – waste management in food production of plant and animal origin and food packaging, methodology on food waste data gathering, creating household food waste diaries, importance of consumer education, food waste quantification and characterization in catering industry.

**Primary and Secondary Sources Selection**

**Active Teaching Hours:**
- Theory: 3
- Practice: 2

**Applicable Teaching Methods:**
- lectures, exercises, research and project papers production, case study analysis, simulation, interactive discussion, mid-term exams, exams;

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ECOTOXICOLOGY

Teacher: Milena Rikalovic, PhD, Assistant Professor

Course Status: Compulsory

ECST Value: 8

Prerequisite: Basics of Chemistry and Biochemistry, Biology with Ecology

Course Goals and Objectives

The aim of the course is to introduce students to the course and directions of research in ecotoxicology as well as to acquire knowledge from this multidisciplinary science. Students will become acquainted with the basic groups of toxicants, their fate in the environment, processes that occur in living systems when exposed to toxic substances and mechanisms of their effects at the individual, population and ecosystem level. They will also become acquainted with the monitoring of environmental toxicants.

Course Outcomes

Students will master knowledge of toxic substances that are present in the environment naturally or are caused by anthropogenic activity, its distribution and conditions in which toxic effects on living systems occur, through toxicokinetic and toxicodynamic processes. Students will become acquainted with the classification of toxic substances, legislation in the Republic of Serbia and the world, monitoring and biomonitoring and their importance for risk management in this area.

Course Content

Theory

Cell and molecular level of interaction; Ecotoxicology as a science; Toxicants and eco-toxicants - sources, properties, availability; Toxic effects, biomarkers and toxicity tests; Toxicokinetics - intake and transport; Toxicokinetics - metabolism, excretion and cumulation; Toxicodynamics - biochemical and physiological response of the organism to toxicants; Heavy metals, pesticides, xenoestrogens; Biotoxins, waste as a source of toxicants; Plastics and impact on the environment and living systems; Effect of toxic substances on populations, communities and ecosystems; Teratogenic, mutagenic and genotoxic agents; Changes in communities and ecosystems and ecotoxicological risk assessment. Monitoring and biomonitoring and their role in risk assessment. Possibilities for preventing, operating and treating the harmful effects of accidents with physical and chemical radioactive toxic agents.

Practice

Workshop - Categorization and labeling of toxic substances; Basic principles of performing toxicity tests and substance toxicity testing methods; Workshop - regulatory aspect of ecotoxicology - domestic and EU laws regulating procedures for registration of plant protection products, biocidal products and industrial chemicals (REACH); Visits to scientific research and health institutions dealing with the monitoring of toxic substances, impact on humans and the living world; Debate; Seminar.

Primary and Secondary Sources Selection

3. Truhaut R. "Eco-Toxicology-Objectives, Principles and Perspectives", Ecotoxicology and Environmental Safety. 1977, 1, 151-173

Active Teaching Hours: Theory: Practice:

Applicable Teaching Methods: Lectures, seminar, workshops, debates, study visits, mid-term exams, oral exam

Grading Scheme (max. 100 points)

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</table>
**Study Programme:** Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

**Course Title:** SUSTAINABLE MANAGEMENT OF FOREST ECOSYSTEM

**Teacher:** Jelena Milovanović Radosavljević, PhD, full professor

**Course Status:** elective

**ECST Value:** 8

**Prerequisite:** /

**Course Goals and Objectives**
To make students competent for the examination of the state of forests and forest areas in Serbia, with the aim of protection and advancement in the state of forest ecosystems, conservation and sustainable use of wildlife. The attaining of knowledge concerning the basis of forest and hunting resources management planning.

**Course Outcomes**
The acquired knowledge related to the role and significance of forest and hunting resources, as well as its interaction with local communities and the skills in identifying, evaluation of significance, evaluation of vulnerability, protection and preservation, so as the sustainable use of wildlife species and their habitats.

**Course Content**

*Theory*
The definition and function of forests as ecosystems. The state of forests and forestry in Serbia. Degraded forest resources in Serbia. International obligations in forestry and hunting. National obligations in forestry and hunting. The arrangement and planning of the forest and hunting resources management. The sustainable use of forest and hunting resources. Forest products. The protection of forests and hunting fauna. Directions in the development of forestry and hunting in Serbia. The development measures. The evaluation of forest and hunting resources. The financing of forestry and hunting. Forestry and hunting in rural development. Hunting tourism.

*Practice*
The analysis of forest resources perception as the base for the local development. Study research work at mapping of the factors of forests and wildlife vulnerability. The design of measures for the inclusion of local communities into conservation of forest and hunting resources, using the concept “Hunting economy driven conservation”. Study trips to managers of protected natural resources, forestrics and hunting ground. The modelling of processes in forest ecosystems and wildlife population. Practical work with modelling softwares.

**Primary and Secondary Sources Selection**

**Active Teaching Hours:** 5  **Theory:** 3  **Practice:** 2

**Applicable Teaching Methods:**
Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

**Grading Scheme (max. 100 points)**

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**Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

<table>
<thead>
<tr>
<th>Course Title: PROTECTION OF ENDANGERED SPECIES</th>
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<tbody>
<tr>
<td>Teacher: Jelena Milovanović Radosavljević, PhD, full professor</td>
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<tr>
<td>Course Status: elective</td>
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<td>ECST Value: 6</td>
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<td>Prerequisite: /</td>
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### Course Goals and Objectives
Introducing basic methods of conservational biology in endangered species and their habitats management, with contemporary projects in endangered species management, methods and measures of passive and active protection in the process of managing endangered species and their habitats, and on the role of relevant subjects in this area.

### Course Outcomes
To enable the students to recognize biological, especially species diversity and its conservation, to acquire basic knowledge and skills in endangered species management, that is determining goals, priorities, planning special activities, monitoring current state, organizing necessary active and passive protection measures as well as promotional and educational activities.

### Course Content

#### Theory


#### Practice

Research study paper on genetic resources conservation and improvement strategy and programme of a selected plant or animal species, choosing the adequate assessment method of interspecies variability and its conservation model.

### Primary and Secondary Sources Selection


### Active Teaching Hours: 5

- Theory: 3
- Practice: 2

### Applicable Teaching Methods:

- lectures, multimedia presentations, group work on endangered species genetic resources conservational strategy, study visits, mid-term exams, written exam
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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: GREEN ECONOMY
Teacher: Sanja Filipović, PhD, full professor
Course Status: elective
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
The objective of the course is to familiarize students with the concept of green economy and its significance for the sustainable development of the economy.

Course Outcomes
Upon completion of this course, students will be able to understand all the aspects of the green economy and apply the acquired knowledge in modern business environment.

Course Content
Theory

Practice
The analysis of different indicators of sustainability and the position of Serbia. The institutional support to the sustainable development. Examples of active public policy and effective measures. The greenhouse gas emissions costs analysis and the economic measures for emission reduction. The economic incentives for renewable energy resources. The subsidies for the energy efficiency improvement. Corporate Social Responsibility. Case studies - the biggest ecological disasters caused by the human factor and their consequences.

Primary and Secondary Sources Selection

Active Teaching Hours: 5
Theory: 3
Practice: 2

Applicable Teaching Methods:
Lectures, practice, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: CIRCULAR ECONOMY
Teacher: Sanja Filipović, full professor
Course Status: Elective
ECST Value: 8
Prerequisite: /

Course Goals and Objectives

The objective of this course is to introduce students to the basic concept and principles of the circular economy.

Course Outcomes

Upon completion of this course, students will understand the benefits of a circular economy and the prerequisites necessary for the circular economy to be applied in practice.

Course Content

Theory

Practice

Primary and Secondary Sources Selection


Active Teaching Hours: 5
Theory: 3
Practice: 2

Applicable Teaching Methods:
Lectures, practice, seminar paper, case analysis, mid-term tests, written exam

Grading Scheme (max. 100 points)

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</table>
| Course Title: BASICS OF MAPPING METHODS  
| Teacher: Boris Vakanjac, PhD, associate professor  
| Course Status: compulsory  
| ECST Value: 8  
| Prerequisite: /  

**Course Goals and Objectives**  
Teaching students the methods of fieldwork, data collection and sampling. Documentary photographs development. Outdoor work. Technical documentation work. Understanding the observation point notion. The use of topographic bases. The development of the map of observed objects and report writing.

**Course Outcomes**  
The understanding of observed fields. The use of various base maps. Getting on the field. Fieldwork. Fieldwork safety. Route making. The use of the compass and GPS devices. Mastering the methods of observing objects of interest in a field, the graphics and technical documentation writing. Training in mapping. The creation of a spatial database.

**Course Content**

*Theory*

*Practice*

**Primary and Secondary Sources Selection**

**Active Teaching Hours:** 3 (Theory) 2 (Practice)

**Applicable Teaching Methods:**  
lectures, practice, seminar paper with presentation, interactive discussion, mid-term exam, written exam;

**Grading Scheme (max. 100 points)**

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ECOLOGICAL AND ECONOMIC INSTRUMENTS IN SUSTAINABLE DEVELOPMENT

Teacher: Mesud R. Adzemovic, PhD, assistant professor

Course Status: compulsory

ECST Value: 8

Prerequisite: /

Course Goals and Objectives

Ecological and economic instruments represent a category for putting the policy of environmental protection into practice. Furthermore, the rule is that they often include either financial transfers between polluters and the community (via numerous taxes, fees, financial bailout, permits, etc) or they can be used as substitutes for other instruments of this policy, or they can affect the expenses and benefits to the environmental protection. The objective of this course is to enable students to set the system of valorization of ecological resources in the appropriate way, which are then used to promote their efficiency and sustainable usage.

Course Outcomes

Students will be enabled to recognize and precisely classify and characterize types and usages of ecological and economic instruments, to identify conditions for their efficient functioning and implementation, but also to identify their flaws and negative consequences of the implementation in contemporary ecological practice. Critical thinking about the role of economic instruments and their efficiency in the system of environmental protection is in the focus of the analysis and generalization of the relations and connections in the complex system nature - society - economy.

Course Content

Theory

Ecological determinants of economy; Internalization, externalization and sustainable development; Instruments for regulation and ecological taxation; Making the economy ‘green’ and ecological taxes; ‘Green’ tax reform; ‘Green’ budget; Typology, classification and characterization of ecological and economic instruments for environmental protection; Midterm - knowledge assessment; System(s) of environmental protection and local ecological funds; Ecological Fund; Reform of regulations regarding economic instruments of environmental protection; Frameworks and objectives of introducing new ecological and economic instruments of environmental protection. Challenges of transpositions of EU legislations regarding economic instruments of environmental protection and legislation of the Republic of Serbia; Midterm- knowledge assessment.

Practice

The analysis and evaluation of the efficiency of certain types of ecological and economic instruments and ecological (green) funds. Presentations of students’ seminar papers.

Primary and Secondary Sources Selection


Active Teaching Hours: 5

| Theory: 3 | Practice: 2 |

Applicable Teaching Methods:

Lectures, practice, seminar papers, case study analysis, interactive discussion, midterms, oral exams. Students’ achievements are visible during lectures or during oral examination.
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<tr>
<th>Grading Scheme (max. 100 points)</th>
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</table>
### Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

### Course Title: PROTECTED NATURAL GOODS

**Teacher:** Jelena Milovanović Radosavljević, PhD, full professor  
**Course Status:** elective  
**ECST Value:** 8  
**Prerequisite:** /

### Course Goals and Objectives
The goal of the course is to introduce the students with national and international standards and methods in protected natural goods managing and managing efficiency evaluation. During practical and theoretical parts of the course, students will develop knowledge and skills in planning protected natural resources' sustainable managing tools.

### Course Outcomes
Students will be enabled to adequately set up a protected natural goods managing system. Based on the acquired knowledge and analytical skills, students will be able to autonomously produce a protected natural resources management plan.

### Course Content

#### Theory
- Environment Protection History in the World and in Serbia, International Nature Preservation Organizations of Importance, International Nature Preservation Agreements of Importance, International Protected Area Management Guidelines, Types of Protected Natural Resources, Protected Areas and Protection Manners, Ecological Network, NATURA 2000 Area Management, Invasive Species Management in Protected Areas, Ecosystem Services Evaluation as a Base of Sustainable Protected Area Management, Sustainable Socioeconomic Progress and Protected Area Financing, Ecotourism in Protected Areas, UNESCO’s Biosphere Reserve’s Role in Sustainable Development, Methods of Protected Area Management’s Evaluation

#### Practice
- Producing a Protected Area Management Plan. Visiting a selected protected area.

### Primary and Secondary Sources Selection

### Active Teaching Hours:
- Total: 6 hours  
  - Theory: 3 hours  
  - Practice: 3 hours

### Applicable Teaching Methods:
- lectures, practice, research papers and project papers, case studies, simulation, interactive discussion, mid-term exams, written exam

### Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: PRESERVATION OF BIOLOGICAL RESOURCES

Teacher: Gordana Drazic, PhD, Full Professor / Jelena Milovanović Radosavljević, PhD, Full Professor

Course Status: Elective

ECST Value: 8

Prerequisite: /

Course Goals and Objectives
The aim of the course is to introduce students to biological values and resources, to their universal role as well as to scientific, practical, aesthetic, cultural, ethical and economic significance. What is more, the aim is to introduce them to the state of biological resources in Serbia, to their actual and potential reserves, anthropogenic pressures and unsustainable use, to the possibilities, needs and ways of their preservation, renewal and sustainable use.

Course Outcomes
It enables students to realistically assess the value, condition, role and perspectives of biological values in order to build skills for their preservation and valorisation at the same time, since they are a resource for satisfying human needs. Students are capable of designing and managing sustainable production systems (biomass for food, construction and energy production), and at the same time enabling the preservation of biological resources on which they rely. They acquire perception skills associated with the degree of biological resources vulnerability and identification of the need and directions for their conservation / rehabilitation.

Course Content

Theory
Types of biological resources and values, their status and significance. Scientific, practical, cultural, ethical, aesthetic and economic significance of biological resources and values. Legislative and regulatory framework and international framework for managing biological resources and values. Unsustainable anthropogenic pressures. Models and methods for sustainable management of biological resources and values. The importance of traditional biological resources management systems (High Nature Value Farming Systems). Modern sustainable systems for managing biological resources (organic and biodynamic agriculture, permaculture, etc.) and perspectives of sustainable management of biological resources and values. Possibilities and directions of rehabilitation, revitalization and remediation of biological resources. Preserving biological resources in the light of perspectives of genetic manipulation and GMO.

Practice
Study research work on the analysis of the condition and management of biological resources in the selected rural area and making recommendations for its revitalization by combining remediation techniques, rehabilitation of traditional farm systems, aggregation economy, hunting, fishing, etc., as well as introducing modern farm and agroforestry systems from a set of, so called, ecological production.

Primary and Secondary Sources Selection

Active Teaching Hours: 6
Theory: 3
Practice: 3

Applicable Teaching Methods:
Lectures, exercises, project assignment, case analysis, interactive discussion, mid-term exams/tests, exam.

Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ENGLISH LANGUAGE 3
Teacher: Jelena Prsic, PhD
Course Status: compulsory
ECST Value: 6
Prerequisite: /

Course Goals and Objectives
English Language 3 is a Course that follows the English Language 2 course – i.e. its form and content. The Course aims at enhancing students’ skills and competences regarding all the language skills – and placing them within the borders of C1 CEFR level. In this way, the Course intends to enable students to communicate in different language contexts and for different purposes – general, specific and academic.

Course Outcomes
Upon completing the English Language 3 Course, students are capable of understanding and transmitting the intended messages in English in a confident and effective manner. In that communication process – students exhibit the knowledge of language belonging to C1 CEFR level – i.e. they are capable of performing rather demanding language tasks related to study and work endeavours. Moreover, students are pragmatically aware of specific needs in different language contexts.

Course Content
Grammar-related Units
Revising and shedding some new light on – Present Simple & Progressive, Present Perfect Simple & Progressive, Future forms, Past tenses, Passive voice, Relative clauses, Participle clauses, Adjectives/Adverbs, Gradability, Comparisons, Articles, Determiners

Lexical Units
Common Lexical Mistakes, Easily Confused Words, Compound Formations, Fixed Expressions, E-commerce, IT Literacy, Socialisation, Genartions and their Traits; ESP – Biodiversity, Conservation, Adapting to Climate Change, Renewable Energy,

Primary and Secondary Sources Selection
2. Murphy, R. English Grammar in Use (Book with answers and Interactive ebook), CUP, 2015

Active Teaching Hours: 6
Theory: 4
Practice: 2

Applicable Teaching Methods:
Interactive lectures – gamified and collaborative teaching/learning, humanistic and personalized methods, language skills’ assessment, tests, midterm exams, written and oral exam

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</table>
Course Title: SUSTAINABLE TOURISM
Teacher: Gordana Dražić, PhD, full professor
Course Status: elective
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
The aim of the course is to introduce students to the concept and principles of sustainable tourism development; understanding positive interactions and potential incongruities of protecting and making use of natural and cultural heritage in tourism; mastering the basics of the environmental protection system and the sustainable development of tourism products and destinations; mastering the basic principles of greening and shortening value chains in tourism based on intersectoral vertical and horizontal integration between stakeholders, with a view to increasing sustainability.

Course Outcomes
Teaching students to apply the concepts, principles and criteria of sustainable tourism development; to analyse and study the impacts of tourism development on the environment, natural and cultural heritage and quality of life of the local population, as well as to take part in managing environmental quality.

Course Content

Theory
Sustainable Development, Sustainable Development in the EU; Sustainable tourism development, Agenda 21 for Tourism; Challenges of achieving sustainable tourism; Responses to achieving sustainable tourism; Cross-border capacity of the tourist area and the center; Climate change and sustainable tourism development; New and renewable energy sources. Energy efficiency; Sustainable use of protected natural assets (national parks); Sustainable tourism development in mountainous areas; Routing and management of development, legal and planning bases, strategic assessment and assessment of environmental impacts; Sustainable development management performance - Multisectoral Approach; ISO standards and EMS, Environmental labelling; Sustainable tourism development indicators;

Practice
Introduction to basic concepts of ecology using video presentations, good practise examples in the field of sustainable tourism development (analysis of the reports of the Environmental Protection Agency on sustainable tourism development in the EU), analysis of the management of protected natural resources in Serbia and the region, comparative analysis of environmental and economic advantages and disadvantages of Mountain tourism, practising academic skills of delivering presentations through project tasks

Primary and Secondary Sources Selection

Active Teaching Hours
Theory: 4  Practice: 2

Grading Scheme (max. 100 points)

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### Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

**Course Title:** SUSTAINABLE DEVELOPMENT OF LOCAL COMMUNITIES  
**Teacher:** Jelena Milovanović Radosavljević, PhD, full professor/Mesud Adžemović, PhD, assistant professor  
**Course Status:** elective  
**ECST Value:** 8  
**Prerequisite:** /  

### Course Goals and Objectives

to get students acquainted with the basis of sustainable development in local communities, as well as with territorial specificities among local communities throughout Serbia: acquiring skills for providing support to the sustainable development of local communities and the management of development processes.

### Course Outcomes

The acquired knowledge related to the principles of sustainable development in local communities, key stakeholders and their role, the theory and practice of partnership, good national and foreign practice. The qualification in the production of strategies and programmes of sustainable development at the local and regional level, as well as the implementation of ecosystem approach as the basis of action plans for the sustainable development, starting with the analysis of available resources and risks through the organization and implementation of participatory development planning, monitoring and control of acquired solutions to their audit.

### Course Content

**Theory**


**Practice**

Participative work on mapping of available resources, the creation of options and priorities determination, the implementation of activities (PLA/PRA methodology, strategic and action planning of sustainable development in local communities). The formation of LAG – local action (the EU LEADER principles)

### Primary and Secondary Sources Selection


### Active Teaching Hours: 6  
**Theory:** 3  
**Practice:** 3

### Applicable Teaching Methods:

Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written exam.

### Grading Scheme (max. 100 points)

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: URBAN ECOSYSTEMS
Teacher: Maja Vujčić Trkulja, PhD, assistant professor
Course Status: elective
ECST Value: 8
Prerequisite: /

Course Goals and Objectives
To gain knowledge on environment and urban ecosystems degradation process, as well as the consequences of the processes, applying the multidisciplinary models and methods in preventing and enhancing the state of urban ecosystems. Within the course, students are introduced with the influences that urbanized environments have on ecological factors, getting a better insight into the size and importance of anthropogenic environments’ influence on the quality of ecosystem services and certain ecological factors.

Course Outcomes
Training the students to analytically and professionally deal with the ecosystem services issues through the environment factor analysis and the analysis of the risk they impose on urban population's quality of life. Students will be enabled to apply the acquired knowledge in the area of environment and urban ecosystems through independent scientific research work on specific case studies. Based on the problem resolved in the practical part of the course, the students will be enabled to write and defend their final paper.

Course Content

**Theory**

**Practice**
Application of SWOT analysis as an instrument of subjective and objective assessment of anthropogenetic influence in urban ecosystems. Models and methods of preserving and improving biodiversity and environment in urban ecosystems, in accordance with the ecological principles. Consulting contemporary empirical evidence and case study analysis. Producing and presenting assignment papers.

**Primary and Secondary Sources Selection**
6. Vujic et al., 2018. Connection between urban green areas and visitors’ physical and mental well-being. Urban Forestry & Urban Greening

**Active Teaching Hours: 6**
**Theory: 3**
**Practice: 3**

**Applicable Teaching Methods:**
Lectures, exercises, research papers, case study, simulation, interactive discussion, mid-term exams, written exam;

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: POLLUTION AND PROTECTION OF AIR  
Teacher: Svetlana Stanisic, full professor  
Course Status: elective  
ECST Value: 6  
Prerequisite: /  

Course Goals and Objectives  
The objective of this course is to introduce students to the substances that pollute the air, how they enter the atmosphere, the transformations they undergo in the air and the methods to prevent air pollution.

Course Outcomes  
It is expected that students will acquire knowledge necessary to learn about and understand the basic processes that influence the condition and quality of air, and become familiar with the properties of pollutants and ways to reduce pollution.

Course Content  
Theory  

Practice  

Primary and Secondary Sources Selection  

Active Teaching Hours: 6  
Theory: 3  
Practice: 3  

Applicable Teaching Methods:  
Lectures, practice sessions, essays and projects, case studies, simulation, interactive discussion, midterm exam, written exam.

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Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: CLIMATE CHANGE AND INTERNATIONAL RELATIONS

Teacher: Svetlana Stanišić, PhD, full professor/Vladimir Džamić, PhD, full professor

Course Status: compulsory

ECST Value: 8

Prerequisite: /

Course Goals and Objectives
Goals and objectives of the course are to get students acquainted with the development of climate change and their impact on the environment, global economy and contemporary society, as well as with multilateral initiatives whose aim is to reduce the negative effects of climate change.

Course Outcomes
Upon completion of this course, it is expected that students will be able to understand causes and consequences of climate change, and to comprehend the way in which international relations influence the creation of global policies concerning the struggle against the negative effects of the climate change, so as to recognize strategic directions in the international relations development in the 21st century, from the environmental point of view.

Course Content

Theory
The global warming theories and the scientific consensus concerning the contribution of human activity to the increase in the average global air temperature. The greenhouse gases: sources and effects on global warming. International organisations: concept, role and significance. The United Nations' role in the environmental protection. International conventions and multilateral initiatives in the field of environmental protection. The Role of the Council of Europe and the European Union in the creation of ecological standards. The Paris Agreement: challenges and perspectives.

Practice
Climate change effects: wildfires, extreme meteorological occurrences and polar ice melting, ocean and sea acidification, biodiversity defects and sea level rise. The impact of climate change on the quality of human life. Highly developed countries and international relations: ecological aspects. Developing countries and low developed countries and international relations: ecological aspects.

Primary and Secondary Sources Selection

Active Teaching Hours: 5

Theory: 3

Practice: 2

Applicable Teaching Methods:
Lectures, seminars, seminar and project work, case study, simulation, interactive discussion, mid-term exams, written examination.

Grading Scheme (max. 100 points)

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**Study Programme:** Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT  
**Course Title:** MANAGEMENT OF ECOPROJECTS  
**Teacher:** Jelena Milovanović Radosavljević, PhD, full professor  
**Course Status:** compulsory  
**ECST Value:** 6  
**Prerequisite:** /  

### Course Goals and Objectives

The main goal of Eco Project Management is to provide demanded technical performance and project quality, with least expenses and in shortest realization period. If the planned budget and deadline are not achievable, then the objective is to minimalize the exceeding time and cost. The goal of the course is to enable the students to approach the project realization in the defined manner.

### Course Outcomes

To capacitate the students in understanding that project management is a scientifically based and practically proven concept that uses appropriate organisation methods, informatics, planning, leading and control to rationally harmonize the necessary resources and coordinate the necessary activities in order to realize a certain project in the best manner.

### Course Content

**Theory**


**Practice**

- The participation in environment protection project proposal. Gathering project proposal production data and information. Participating in future projects decision making on ideas, goals, results and activities. Finding future projects adequate financing model, presenting possible donators and procedures. The analysis of successful projects examples in environment protection, field inspections. Project proposals exchange among students in order to master the project evaluation/assessment process.

### Primary and Secondary Sources Selection

### Active Teaching Hours

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<thead>
<tr>
<th>Theory</th>
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### Applicable Teaching Methods:

Lectures, audio-visual exercises, mid-term exams, teamwork in producing project proposition, written and oral exam. Visiting institutions and organizations in order to introduce the good practice in ecoproduction management to the students.

### Grading Scheme (max. 100 points)

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Study programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ENVIRONMENTAL IMPACT ASSESSMENT

Teacher: Emilijan Z. Mohora, Assistant Professor

Course Status: Elective

ECTS Value: 8

Prerequisite: /

Course Goals and Objectives

In terms of environmental impact assessment, the main objective of the course is that students master the basic steps of the process of assessing the impact of different human activities on the environment. Students get acquainted with state, local and international regulations in the field of environmental impact assessment. It is extremely important to present models for implementing the environmental impact assessment process to students and to explain them how to integrate the assessment results into long-term and short-term spatial and environmental planning.

Course Outcomes

Ability to identify environmental risks, as well as mastering the basic principles of risk assessment procedures in the environment. Students’ ability to engage in the preparation of environmental impact assessments at different levels within the management and environmental system.

Course Content

Theory:
Global environmental challenges; The concept of risk; Technological accidents and risks in the environment; Natural Hazards and Environmental Risks; Studying methods for predicting and assessing environmental risks; Risk management; Legal, institutional and organizational framework for risk assessment; EU regulations in the field of risk assessment in the environment; EU Programs and Recommendations for Emergency Response; Managing Ecological Risks through Plans and Programs in the Republic of Serbia; Environment and human health; Contemporary management and environmental management system; Basic principles of environmental protection; Environmental Impact Assessment: importance, objectives, impact assessment subject; Environmental Impact Assessment Study; Methodology of impact assessment; Case studies.

Practice:
Practice involves analysis and assessment of environmental risks, evaluation and risk management plans writing. Practical involvement and engagement of students in the preparation of impact assessment studies. In the case of selected project, based on previously acquired knowledge, in consultation with the professor, the student defines the impact assessment procedure for projects that can have significant environmental impacts as well as the content and scope of the environmental impact assessment study and other issues of importance for the environmental impact assessment.

Primary and Secondary Sources Selection

4. IFC Performance Standards, 2012

Active Teaching Hours

Applicable Teaching Methods
Lectures, audiovisual practice, research paper, project paper, mid-term exams, written exam.

Grading Scheme (max. 100 points)

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**Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

**Course Title:** ENVIRONMENTAL RISK MANAGEMENT

**Teacher:** Emilian Z. Mohora, PhD, Assistant Professor

**Course Status:** Elective

**ECST Value:** 8

**Prerequisite:** / None

**Course Goals and Objectives**
Acquiring special, specific knowledge and understanding the risks of natural disasters conditioned by climate change; Strengthening the risk management system for natural disasters and catastrophes conditioned by climate change; investing in natural disaster risk reduction in order to strengthen resistance and improve readiness for effective response in the event of a natural disaster.

**Course Outcomes**
Students are able to identify and recognize environmental and social risks conditioned by climate change, as well as master the basic principles of risk assessment in the environment, which are conditioned by climate change. This will enable students to actively participate in the elaboration of environmental impact assessment studies and the development of risk management plans. They will be able to perceive the elements of environmental and social risks within the management system and environmental protection, caused by climate change at different levels.

**Course Content**

*Theory*
Different topics will be covered within theoretical teaching, with a view to understanding the risks of natural disasters conditioned by climate change. Teaching will be based on understanding all dimensions of vulnerability, capacity, people and property exposure, as well as the characteristics of danger and environmental impacts. Such knowledge is used to estimate the disaster risk, to prevent and mitigate disasters and to manage risks.

Strengthening natural disaster and catastrophe risk management system is achieved through a primary assessment of the impact of climate change on critical infrastructure, preparation of adequate adaptation plans for climate change and risk management plans conditioned by climate change.

*Practice*
Thematic workshops about climate change impact on critical infrastructure and specific risk management plans for natural disasters and catastrophes conditioned by climate change impact.

**Primary and Secondary Sources Selection**
1. Disaster Risk Reduction Tools and Methods for Climate Change Adaptation, UNISDR

**Active Teaching Hours:**

<table>
<thead>
<tr>
<th>Theory</th>
<th>Practice</th>
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</table>

**Applicable Teaching Methods:**
Lectures, audiovisual exercises, two mid-term exams/tests, written exam, consultations

**Grading Scheme (max. 100 points)**

<table>
<thead>
<tr>
<th>Pre-exam Requirements</th>
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Grading Scheme (max. 100 points):
Course Title: ENGLISH LANGUAGE 4
Teacher: Jelena Prsic, PhD
Course Status: compulsory
ECST Value: 6
Prerequisite: /

Course Goals and Objectives

English Language 4 is a Course that follows the English Language 3 course – i.e. its form and content. The Course aims at enhancing students’ skills and competences regarding all the language skills – and placing them within the borders of C1-C1+ CEFR level. In this way, the Course intends to enable students to communicate in different language contexts and for different purposes – general, specific and academic.

Course Outcomes

Upon completing the English Language 4 Course, students are capable of understanding and transmitting the intended messages in English in a confident and effective manner. In that communication process – students exhibit the knowledge of language belonging to C1-C1+ CEFR level – i.e. they are capable of performing rather demanding language tasks related to study and work endeavours. Moreover, students are pragmatically aware of specific needs in different language contexts.

Course Content

Grammar-related Units
Revising and shedding some new light on – Conditional Sentences – III Types, Cleft Sentences, Indirect Speech, Clefting, Infinitives, Participle, Special Case Passive and Causative, Mood in English

Lexical Units
Metaphor and Metonymy, Similarities and Differences in Different Registers, Language of the Media, Back Formation, Conversion; ESP – Chemicals Management, Air Quality, Climate Science and Data, International Regulations

Primary and Secondary Sources Selection
2. Murphy, R. English Grammar in Use (Book with answers and Interactive ebook), CUP, 2015

Active Teaching Hours: 6
Theory: 4
Practice: 2

Applicable Teaching Methods:
Interactive lectures – gamified and collaborative teaching/learning, humanistic and personalized methods, language skills’ assessment, tests, midterm exams, written and oral exam

Grading Scheme (max. 100 points)

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Study programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Course Title: ENVIRONMENTAL MONITORING

Teacher/Teachers: Boris Vakanjac, Associate Professor/ Milena Rikalović, Assistant Professor

Course Status: Compulsory

ECTS Value: 8

Prerequisite: Basics of Chemistry and Biochemistry, Biology with Ecology

Course Goals and Objectives

The objective of this course is to familiarize students with basic principles, methods and procedures for establishing environmental monitoring, as well as with the importance of monitoring environmental changes in real time. This course will provide students with knowledge in the field of air, water and soil monitoring, modern methods used, generating databases as well as producing reports and elaboration of results related to environmental monitoring. Additionally, students will be familiar with legal regulations in this area.

Course Outcomes

Students will be able to independently establish an environmental monitoring program, to perform sampling of air, surface and ground water, soil, suspended application, etc. and to define the parameters for their monitoring. Students will also gain practical skills in forming a database of the obtained results and their graphic interpretation.

Course Content

**Theory:**

Environment; Origin of pollutants; Air pollution; Water pollution; Soil pollution; Ionizing and non-ionizing radiation; Noise; Monitoring as a term and its importance; Environmental monitoring subject; Legislation related to monitoring - Ambient Air Quality Directive, Water Framework Directive, Land Protection Act, MDK Values; Monitoring facilities in the environment; Air Quality Monitoring - methods and instruments for determining concentrations of pollutants in the air; Monitoring of surface waters, methods and instruments for observation and measurement of quantitative and qualitative parameters of waters, methods and instruments for sampling of suspended and drawn deposits within the surface flow; Monitoring of groundwater, methods and instruments for monitoring and measuring of quantitative and qualitative parameters; Land monitoring; Analytical methods for monitoring pollutants in the air, water and soil; Contemporary monitoring approach - biosensors, -omics approach; Monitoring of landfills, municipal and industrial waste; Establishment of environmental monitoring programs, fieldwork and sampling; Generating a database of monitoring, creating graphic - technical documentation, organizing reports and elaborates.

**Practice:**

Getting acquainted with monitoring methods and a laboratory for testing the quality of air, water and soil; Field work: one-day visit to the Laboratory for Environmental Physics of the Institute of Physics in Belgrade, familiarization with measuring methods for air quality assessment; Field work: one-day visit to the RHMZ with a practical example of measuring the flow and sampling of the Topčider River water in the profile of the water meter station Rakovica. Laboratory exercise for performing analysis of taken sample of Topčider River; Field work: one-day visit to the Environmental Protection Agency. Field work: soil sampling from a site where higher concentrations of certain pollutants are expected. Laboratory exercise of soil sample analysis.

Other Teaching Forms: Different examples of establishing an environmental monitoring programme - independent students’ work.

Primary and Secondary Sources Selection


3. Environmental and Source Monitoring for Purposes of Radiation Protection; 2005, IAEA Safety Standards

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<th>Theory: 3</th>
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Grading Scheme (max. 100 points)

Applicable Teaching Methods: Lectures, laboratory exercises, research paper, mid-term exams, oral exam.
### Study Programme: Undergraduate Studies – THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

**Course Title:** PRACTICAL RESEARCH AND BUSINESS SKILLS  
**Teacher:** Vladimir Džamić, PhD, full professor  
**Course Status:** compulsory  
**ECST Value:** 8  
**Prerequisite:** /

#### Course Goals and Objectives
The aim of the course is to introduce students to basic concepts and categories in the field of applied skills with a focus on solving specific problems. The subject is aimed at mastering skills through active teaching supplemented by practical work in a specific firm, and design and defense of an independent project. Teaching students to work independently in the economy, deepening and applying the knowledge in the field of professional development and business skills, and applying the theoretical knowledge in specific case studies.

#### Course Outcomes
Students are expected to be able to understand and apply key skills, basic principles for achieving goals, the role of lifelong learning in achieving success and positive business results, as well as the individual aspect of the role of an individual as an employee in an organization. By virtue of completing their task through practical work (collected data, statistical analysis, software realization, model, etc.), students will be able to write and defend their bachelor’s thesis.

#### Course Content

**Theory**  

**Practice**  
Personal SWOT analysis. Subjective and objective assessment of one’s personal and business skills; personality tests in an organizational environment. Myers–Briggs Type Indicator. Practical implications of social and emotional intelligence in a business environment. Practical use of communication skills: public announcement, official communication, practice of public appearance. Writing academic texts and practicing academic writing as well as the skill of presenting academic papers.

#### Primary and Secondary Sources Selection

#### Active Teaching Hours: 3  
**Theory:** 3  
**Practice:** 0

#### Applicable Teaching Methods:
lectures, practice, seminar and project paper, case study, simulation, mid-term exam, written exam

#### Grading Scheme (max. 100 points)

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