Description of the program

The study program aims to:

- Contribute to environmental trends developed in our society;
- Foster public opinion for solving environmental problems;
- Scientific Research;

Career

With the completion of PhD studies students acquire 180 ECTS. Their knowledge and skills can be effectively applied in the field of Environmental Management for research purposes. Also, may find employment in Institutions for environmental protection where they can apply their acquired knowledge into practice.

Learning outcomes

Knowledge and understanding

- Shows a systematic understanding of the research field and excellent knowledge of research methods and skills within that field according to the highest international standards;
- Advanced knowledge of the effects of natural processes that take place in the environment;
- Advanced environmental topics such as the greenhouse effect, acid rain, air pollution;
- Advanced knowledge on the importance of effective actions to protect and improve the environment.

Applying knowledge and understanding

- Demonstrates ability to interpret, design, apply and adapt essential research subject with scientific integrity;
- Gives a contribution through original research that transcend the existing boundaries of knowledge, developing new knowledge, in the level of national and international reviewed publications;
• Knowledge of the environmental, economic and educational processes;
• Follow-up of scientific world trends.

Making judgement

• Ability for critical analysis, evaluation and synthesis of new and complex ideas, competency assessment;
• Ability to independently initiate and participate in national and international research networks and events with research integrity;
• Ability to independently initiate research and development projects that will generate new knowledge and skills for the research field development;
• Knowledge of advance concepts, strategies and possibilities of their application in solving certain problems in the field of environmental management;
• Understanding the mutual relationship between the society and the environment.
• Skills in collection, preparation, analysis and display of environmental data necessary for its management.

Communication skills

• Communication with colleagues, the wider academic community and society within his/her area of expertise;
• The skills that will be acquired through these programs can be divided into action skills (intellectual and transferable) and technical skills (practical and knowledge-based);
• According to the selected program, learning outcomes that students will obtain can be grouped as follows;

Learning skills

• It is expected to be capable to promote him/herself in academic and professional frameworks and in technological, social or cultural development in a society based on knowledge;
• Formulate appropriate questions that will lead to successful study and research,
• Define such fundamental concepts as environment, society, development and technology, and application of local, national and global experience,
• Develop hypotheses based on balanced information, critical analysis and careful synthesis, and test them against new information, and personal experience and beliefs.

List of courses

Semester 1

• [DEM0101] [10.0 ECTS] Research Methodology
• [EDEM0103] [10.0 ECTS] Sustainable Development and Environment
• [DEM0106] [10.0 ECTS] Environmental Education

Semester 2

• [EDEM0104] [10.0 ECTS] Natural Resources
• [10.0 ECTS] Elective course 1
• [10.0 ECTS] Elective course 2

Semester 3

• [DEM0105] [20.0 ECTS] Preparation and submission of the application for the topic of doctoral dissertation - research
• [DEM0106-S3] [10.0 ECTS] Doctoral seminar with a presentation of the report I

Semester 4

• [DEM0107] [10.0 ECTS] Researching and organizing a workshop for research practice
• [DEM0108] [20.0 ECTS] Publications

Semester 5
• [DEM0109] [20.0 ECTS] Presentation of Research Results
• [DEM0106-S5] [10.0 ECTS] Doctoral seminar with a presentation of the report II

Semester 6
• [EM-PHD-THESIS] [30.0 ECTS] Doctoral Thesis

Description of courses

Core courses

• Research Methodology
  The program goals: - To understand the advanced scientific research debates dedicated to the subject in the chosen field, especially the development of key concepts, epistemological aspects of their research. - To collect relevant research material that will utilize their scientific activities and publicity. - To understand the magnitude of the research process and access to the various methods of scientific research and the same with advanced techniques, to be able to use in scientific and professional activity. With advanced approach to study the relationship between theory and research practice. - To apply the skills and knowledge they have acquired in their doctoral theses, projects.

• Sustainable Development and Environment
  The main purpose of this program is to provide students with knowledge that will enable the practical application of environmental policies, legislation, and sustainable development. Students will be able to think critically and to participate in the development of strategic planning and legislative documents. PhD students are expected to: - understand the importance of sustainable development at the global, regional, national and local level; - understand the mutual relationship between sustainable development and the environment; - be able to analyze the strategic documents in the field of environment and sustainable development; - be able to implement and integrate the principles of sustainable development and the environmental concerns into economic, energy, health, transport, agricultural, social and other policies; - be trained for independent scientific research work, to work independently and in team work in the field of environment and sustainable development;

• Environmental Education
  Course aim is acquiring the necessary knowledge, skills and skills for planning and realization of environmental education and education for sustainable development.

• Natural Resources
  The course objectives are: - to provide students with advanced knowledge of the environment, introduction to natural resources and concerns over their availability and the dangers of pollution, - the human role as a key factor of environmental pollution and preservation as well as optimal management of the natural resources, - to create and develop good habits to help and protect the environment, to raise ecological awareness and to promote sustainable use of natural resources, - Management of natural resources as a condition for sustainable development, as an important segment of the present and the future. After completion of this course, students are expected to be able independently and as a team to identify, analyze and make appropriate decisions in the area of natural resources and environment. It is also expected students without major difficulties to actively engage and face overall research challenges in this area.

• Preparation and submission of the application for the topic of doctoral dissertation - research
  After the second semester, students begin their activities for the development of the plan on his/her doctoral dissertation. Activities include the definition of literature, defining hypothetical framework, the definition of the work methodology and determination of the individual plan as well as the first public presentation. If necessary, can be held elective courses for this purpose.

• Doctoral seminar with a presentation of the report I
  Candidates will submit a list of all seminars attended, which are relevant to their field and/or their research interest at anywhere in the world, on the attached prescribed form to their supervisors for acknowledgement. These seminars should be research in nature. A report should be written by the students in his/her own words for each seminar attended. The report summarizes key points and provides student’s critical assessment. The student is typically required to initiate a discussion with fellow researchers on the topic to help him/her write the report.
• Researching and organizing a workshop for research practice
  Researching and organizing a workshop for research is an integral part of the study program. Candidates will
  enhance their knowledge, broaden research outlook, and improve thinking and communication skills. Attendance and
  participation in workshop, together with the related discussions with fellow researchers on topics addressed in the
  workshop, will aid in the candidate skills of conducting the dissertation.

• Publications
  Publication of research activities under the table relevant to the media for publication. Publication activities and
  successes of the candidate checked before scientific audience by area and the relevance of the research.

• Presentation of Research Results
  At the end of the 5th semester, after the research activities under the individual plan, overall results of this phase of
  the paper and the research will be presented publicly by the candidate.

• Doctoral seminar with a presentation of the report II
  Candidates will submit a list of all seminars attended, which are relevant to their field and/or their research interest at
  anywhere in the world, on the attached prescribed form to their supervisors for acknowledgement. These seminars
  should be research in nature. A report should be written by the students in his/her own words for each seminar
  attended. The report summarizes key points and provides student’s critical assessment. The student is typically
  required to initiate a discussion with fellow researchers on the topic to help him/her write the report.

• Doctoral Thesis
  Continuing the work of doctoral dissertation. Submitted thesis (dissertation), accepted by the Scientific-Teaching
  Council of the Faculty/Institute and submitted to committee members and begins the procedure of public defence.

Elective courses

• Economics and Environmental Management
  The course aims to equip students with economic tools and methods for analyzing the fundamental environmental
  problems and strengthen and improve their skills. It is a combination of theoretical analysis with discussions of
  specific environmental policies. This course covers specific topics from microeconomic and macroeconomic analysis,
  problems of social costs, the policy of strengthening environmental benefits, etc.

• Management Information Systems
  This course aims to provide a comprehensive introduction to information systems, from an organizational and social
  perspective. The aim is to provide students with an adequate balance of technical and organisational perspectives,
  which will serve as a foundation for further studies in this field.

• Technological Development and Environment
  The purpose of this course is to develop student knowledge for technological development and advanced technology
  used by companies in the world and their impact on environmental protection.

• Operations Management
  After completion of the course, students should have acquired extended knowledge and understanding and are able
  to: - prepare and make decisions in manufacturing and services; - prepare and make decisions that control
  manufacturing and services; - find a suitable approach for solving any situation associated with complex issues of
  production and services; - realize different activities of the organization and functioning of the entire system of
  operational management; - Prepare and make decisions that create conditions for production and services.

• Culture and Environmental Awareness
  The purpose of the course (competences): Communication skills: Students are expected to develop basic knowledge
  about the individual's role in teaching and promoting environmental awareness. Students will present their views on
  the key elements in this process, and the effects of this process in education in the age of globalization. Applied
  knowledge: Creating educational models for effective teaching and promoting environmental awareness and
  standards. The course offers opportunities to study models for solving certain situations where different cultures of
the same class give their contribution and apply effective models in education. Decision-making: Development of individual portfolio founded on the principles of environmental awareness and inclusion of these standards in education, and identification of unacceptable cases with the aim of developing environmental awareness in education. Knowledge and understanding: Introduction to basic principles of culture, cultural relativism, intercultural and multicultural education and issues treating environmental awareness in the educational system. Learning skills: The importance of environmental awareness in the educational process, promotion and implementation of basic methodological principles for teaching and environmental management.

- **Institutional Position and Cooperation in the Environmental Field**
  The course objectives are: - To develop knowledge and skills on the institutions that have competence in the field of environment, - To understand the institutional network that makes decisions in the field of environment, - To understand the mutual relations and cooperation between institutions in the field of environment, - To be able to analyse decisions in the field of environment and to develop their analytical and critical skills, - To be able to prepare strategic plans and documents in the field of environment, - To conduct independent scientific research work.

- **Environmental Law**
  This course will provide students with opportunities to acquire knowledge of environmental law, starting from international to national law. They will also be provided with opportunities to increase understanding of the international framework, as well as norms and standards on the field of environment, and their implementation and compliance. Thus, environmental law will be taught as an academic discipline, as well as its perspectives and conceptual theoretical and practical problems and concerns that are faced during the process of implementation of the environmental law. The basic aim is to provide students with advanced knowledge on environmental law and develop their knowledge and skills.

- **Advanced Concepts in Information Systems**
  The study program goals: - Study of advanced concepts from the field and terminology of information systems. - Information systems and advanced concepts: hardware, software, networks - E-world: advanced choice for e-business and e-commerce - Evolutionary Processes - To learn more about information systems and advanced technologies that improve business values and different business processes across the organization. - To apply concepts with different management disciplines, during the process of analysis, interpretation, evaluation and decision making. - Understand the redesign process of organizations using information systems. - To describe the role of information systems in decision making. - To consider information security as well as ethical and social questions. - Become familiar with the Internet, electronic commerce (e-commerce) and electronic business (e-business). - Students will be enabled to work on projects, individually or in groups, who by nature can be: case studies, scientific-research projects, development projects or practical work.