



Course description

10.1. General courses

1. KT02002 - Macroeconomics 1 (3 credits: 3 – 0 – 9).

This course provides an introduction to basic economic issues, economic models to analyze life events including basic knowledge of economics, general overview of macroeconomics, gross national product and income, aggregate demand and fiscal, monetary and monetary policy, aggregate supply and business cycle, unemployment and inflation.

2. ML01005 - Ho Chi Minh Ideology (2 credits: 2 – 0 – 6).

This course covers the following contents: Objectives, research methods and courses meanings; The foundation and process of Ho Chi Minh ideology's formation and development; The idea of National issues and Revolutionary Liberation; The idea of Socialism and the road of transition to Socialism in Vietnam; The idea of the Communist Party of Vietnam; The idea of domestic ethnics' unity and international solidarity; The idea of building a State of the people, by the people and for the people; The idea of culture, morals and new people.

3. ML01009 - Introduction to Laws (2 credits: 2 - 0 – 6).

This course provides some basic theoretical issues of State and Laws. Basic background on Civil Law and Criminal Law. Basic background on Economic Law, Labour Law, Law on Marriage and Family. Basic background on Administrative Law and Law on the prevention and combat of corruption

4. ML01020. Philosophy of Marxism and Leninism (3 credits: 3-0-6).

The course is consist of the following content: Chapter 1: Outline of Philosophy and Marxism - Leninism philosophical school; Chapter 2: Dialectical Materialism ; Chapter 3: Historical Materialism.

5. ML01021. Political economy of Marxism and Leninism (2 credits: 2-0-6).

The course is consist of six chapters introducing the following content: Objective, research methodology, and function of Marxism – Leninism Political Economy; Commodity, market, and roles of economic agents; Surplus value; Competition and monopoly; Socialist-oriented market economy and relations of economic interest in Vietnam; Industrialization, modernization and international economic integration of Vietnam.

6. ML01022. Scientific Socialism (2 credits: 2-0-6).

The course is consisted of the following content: Introduction to Scientific Socialism; Historical mission theory of the proletariat; Socialism and Socialist Transition; Socialist Democracy and Socialist State; Structure of Social classes and League of social classes in the socialist transition; Issues of ethnicity and Religion in socialist transition; Issues of Family in socialist transition.

7. ML01023. Vietnamese Communist Party History (2 credits: 2-0-6).

The course is consist of chapters: Objects, functions, tasks, content and methods of studying and studying History of the Communist Party of Vietnam, The Communist Party of Vietnam was born and led the struggle for power (1930-1945), The Party led the two resistance wars to complete the national liberation and reunification of the country

(1945-1975); The Party led the country in the transition to socialism and carried out the renovation work (1975-2018), Conclusion on the great victories of the Vietnamese revolution and great lessons on the leadership of the Party

8. MT01001 - General Chemistry (2 credit: 1,5 – 0,5 – 6)

The course consists of 7 theoretical chapters with the following contents: Basic chemical concepts and laws, atomic and substance structure, thermodynamics, reaction rate and chemical equilibrium, solution, electrochemistry, colloid and 3 lab exercises.

9. MT01002 - Organic chemistry (2 credits: 1,5 - 0,5 – 6)

The course consists of the following contents: The isomerism; the interactions between atoms and groups of atoms in molecules of organic compounds; the structure and property of important organic compounds; the reaction mechanism of some popular organic reactions; the structure, the property and the role of some groups of natural compounds such as glucose, lipids, amino acids and proteins. The practical part consists of the qualitative exercise of the chemical properties of basic organic compounds (3 lab exercises).

10. MT01003 - Colloid Chemistry (2 credits: 1,5 – 0,5 – 6)

This course covers the following contents: General concept of glue system; Optical and electrodynamic properties of colloidal particles; Structure and methods of glue preparation and refining; Inorganic glue - hydrophobic glue; Organic glue - hydrophilic glue; General principles that increase durability, flocculation; Semi-colloidal surfactants; Structural formations, Gels and agar; The sol, emulsion systems. *Prerequisite course: General chemistry*

11. MT01004 - Analytical Chemistry (2 credits: 1,5 - 0,5 - 6)

The course aims to provide the basic knowledge in analytical chemistry for the students. The content of these lessons consists of three chapters as follows: Chapter 1: The basic concepts of analytical chemistry; Chapter 2: Gravimetric method of analysis; Chapter 3: Titrations in analytical chemistry.

12. MT01016 - Basic Ecology (2 credits: 2 – 0 - 6)

The course introduces general concepts of ecology, interactions between organisms and environment at the individual level; populations and communities. Biological population: concepts, characteristics and dynamics; Community: concepts, components, characteristics and dynamics; Ecosystem: Components, structure and dynamics; The main ecosystems; The relationship between natural resources, environment and development.

13. MT02033 - General Microbiology (2 credits: 1,5 - 0,5 – 6)

This course cover the following contents: Basic concept of microorganisms; morphological, biochemical, physiological, genetic, microbial activities of viruses, bacteria, actinomycetes, fungal, microalgae; The relationship between microorganisms and environment; The role of microorganisms in human activities and in agriculture - forestry - fishery, environmental protection; Structure, usage of microscopes and other major equipment in microbiological laboratory; distinguishing microorganisms, microbial straining and morphological observation.

14. MT02043 - Basic Meteorology (2 credits: 1,5-0,5 - 6)

This course covers basic knowledge including the structure and role of the atmosphere; solar radiation; soil and air temperature; precipitation, evaporation and air humidity; wind and natural disaster; meteorological observation, analyze and assess the impact of meteorological factors on production and the environment.

15. SH01001 - General Biology (2 credits: 1,5 – 0,5 – 4)

This course covers the following contents: Scientific study of life; Two Main Forms of Cells; Bioenergetics of Cells; Reproduction and cell cycle; Regulation and adaptation to environment of organism; An Evolutionary Framework for Biology and practices of using microscope

16. SN01032 - English 1 (3 credits: 3 - 0 - 6)

This course consists of five units at pre-intermediate level about the five topics including It's a great job (Unit 1), Great vacations (Unit 2), Cities around the world (Unit 3), Wildlife (Unit 4), All about sports (Unit 5). In each unit, English grammar, vocabulary, and skills are provided and practiced by students through different parts: Start, Listening,

Vocabulary, Grammar, Reading, Song/Culture, Pronunciation, Conversation Takeaway, Writing Takeaway, Test Takeaway.

17. SN01033 - English 2 (03 credit; 03 - 0 - 6)

This course consists of five units at pre-intermediate level about the five topics including Good luck, bad luck (Unit 1), My favorite things (Unit 2), Memorable experiences (Unit 3), I love chocolate (Unit 4), How can we help? (Unit 5). In each unit, English grammar, vocabulary, and skills are provided and practiced by students through different parts: Start, Listening, Vocabulary, Grammar, Reading, Song/Culture, Pronunciation, Conversation Takeaway, Writing Takeaway and Test Takeaway. *Prerequisite course: English 1*

18. TH01007 – Probability and Statistics (3 credits: 3 – 0 – 6)

This course consists of seven chapters: Descriptive statistics; Probability; Random variable; Sampling distributions; Estimation; Hypothesis testing; Simple linear regression model.

19. TH01009 - Introduction to Informatics (2 credits: 1,5 – 0,5 – 4)

The course consists of seven chapters: Introduction; Computer organization; Computer software and operating system; Computer networks and the Internet; The social issues of information technology; MS Word and MS PowerPoint; MS Excel.

20. TH01018 - Physics (2 credits: 2 – 0 – 4)

The course covers the following contents: Unit measurement and unit conversion system, Mechanics, Thermal, Electrical and Magnetic, Wave optics, Atomic and nuclear physics.

10.2. Fundamental courses

1. CD02157 – Technical drawing on Computer (2 credits: 2 – 0 – 6)

This course provides an overall introduction to the course, definitions of technical drawing, several standards representing drawing skills, commands for drawing establishment, enter coordinates and methods to capture points, basic drawing commands, orders for adjustment, correction, commands to observe the drawing, manage drawings by layers, colors and lines, enter and edit text, record dimension, tolerance, limit deviation, deviation in shape, position, surface roughness, and export drawings to paper. *Prerequisite course: General Informatics*

2. ML02012 – Environmental Law (2 credits: 02 – 0 – 6).

This course provides an overview of environmental Law; Legal tools to control environmental pollution, degradation and incidents; Law on pollution prevention in some specific fields; Law on protection of natural resources; Environmental dispute settlement; International cooperation on environmental protection. *Prerequisite course: Introduction to laws*

3. MT01009 - Human Ecology (2 credits: 2 – 0 - 6).

This course focuses on how human being interact with nature. It includes the structure and characteristics of the natural and social systems; the relationship between the natural and social systems, natural - social interaction models; The relationship between exploitation level and the ability to create ecological benefits of the natural system; Sustainable and unsustainable interactions between human and nature; Application of ecological principles to resource management and environmental protection

4. MT01010 – AgroEcology (2 credits: 2– 0 – 6).

The course will introduce a common rationale on agricultural ecology, agricultural ecosystems, agro-ecological models, design of agricultural ecosystems in a sustainable, protect the environment and ecological pests and diseases, weeds and agricultural land. *Prerequisite course: Basic Ecology*

5. MT01011 - Biodiversity (2 credits: 2– 0 – 6).

The course will set forth the concept of biodiversity, monitoring and evaluation for biodiversity; it also covers the following contents: geographic distribution of biodiversity and the functions of biodiversity; biodiversity depletion, strategies and methods for its conservation; the status and conservation actions of biodiversity in Vietnam.

6. MT02001 - Environmental pollution (2 credits: 2 – 0 – 6)

This course covers the following contents: Fundamental concepts of environment and environmental pollution; Air pollution, water pollution, soil pollution (sources, mechanisms, assessment criteria, pollution phenomena and its consequences).

7. MT02003 - Environmental Chemistry (2 credits: 1,5 - 0,5 – 6).

The course consists of 5 theoretical chapters with the following contents: Atmosphere; Hydrosphere; Geosphere; The cycle in nature; Toxicology and 3 lab exercises. *Prerequisite course: General chemistry*

8. MT02005 - Basic of production processes (2 credits: 2 – 0 – 6).

This course provides theoretical knowledge related to basic production processes, description of production processes, material flows and related issues of energy and material consumption as well as waste emissions from productions processes.

9. MT02006 – Environmental Information System - EIS (2 credits: 1 – 1 – 6).

This course covers the following contents: Concept and characteristics of environmental information systems; The role of the environmental information system in managing environmental information in space and time; Database structure of environmental information systems; Methods of integrating different data in the same environmental information system; Calculation, compilation and extraction of environmental data; Practicing application of environmental information system in environmental management. *Prerequisite course: Environmental pollution*

10. MT02007 - Forest resources (2 credits: 2 – 0 – 6).

This courses covers knowledge of biological resources in general and forest biological resources in particular; Methods and criteria for forest classification; Current status and changes of forest resources in Vietnam and around the world, causes of forest degradation and deforestation and related environmental issues; Policies and measures for sustainable forest management and development; The environmental and ecological services of the forest. *Prerequisite course: Basic Ecology*

11. MT02012 – Landscape Geography (2 credits: 2 – 0 – 6).

This course introduces general knowledge about landscape geography, including development history, rules affecting the differentiation of global natural landscapes, related knowledge to landscape theory. The course also helps students learn and apply the knowledge related to landscape modeling, landscape zoning and landscape assessment in resource and environmental management.

12. MT02032 - Soil Biology (02 credits: 2 – 0 – 6).

The course provides knowledge about the main groups of soil organisms (soil microorganisms, soil protozoa and soil animals); Enzymes in soil (Enzymes from soil organisms and plants); Soil organisms in the formation of humus and metabolic compounds in the soil; Dynamics and distribution of soil organisms in several major soil groups in Vietnam and the influence of farming practices on soil organisms.

13. MT02049 - Practice of specialized microbiology (1 Credit: 0 – 1 – 3).

Base on basic knowledge to isolate and preliminarily select microorganisms, to pure, to culture and assess biological characteristics of isolated microorganisms, select suitable microorganisms to create genetic resources in environmental treatment.

14. QL01014 – Water resource management (2 credits: 1,5 - 0,5 – 6).

This course provides general knowledge of water resources including characteristics of quality and quantity and water resources movement. Issues related to water resources economy and water resource planning and management. This module is also designed to help students connect scientific knowledge and practice with the purpose to help learners better understanding natural problems in term of water resources and offer some scientific explanations and solutions to improve currently existed issues in water resources management.

15. QL02047 - Pedology (2 credits: 1,5 – 0,5 - 06).

This course consists of four chapters: The formations of soil, chemical properties of soil, physical and water properties of soil, main groups of soil in Vietnam.

10.3. Specialized courses

1. KT03008 - Environmental Economics (2 credits: 2 – 0 – 6).

This course covers the following contents: The study of basic issues of environmental economic science; Environment and development; Overview of pollution, ecosystems and environmental standards; Economic environmental pollution; Basic content about environmental management; Environmental impact assessment and environmental value assessment methods. *Prerequisite course: Macro-economics I*

2. MT02002 - Hazardous waste management (2 credits: 2 – 0 - 6).

The course equips knowledge of concepts, characteristics, classifications, major sources and the impact of hazardous waste; Management system of hazardous waste monitoring and situation of hazardous waste management in Vietnam; Technology for collecting, transporting, treating and dumping hazardous waste.

3. MT02004 - Instrumental Chemistry (2 credits: 1 – 1 – 6).

This course includes basic knowledge, classification of analysis methods as well as basic steps in instrumental analysis, sampling and preparation, spectroscopy methods, electrochemical methods and method of chromatography. *Prerequisite course: Analytical chemistry*

4. MT02011 - Environmental Management (02 credits: 2-0-6).

The environmental Management course consists 6 chapters and provides learners with the basis of Environmental management including objectives, contents, trends, and scientific foundations of environmental management to understand the government's management system on the environmental protection. This course also analyzes a number of legal, economic, technical and other tools for the environmental management that applied for urban, industrial, and rural areas. *Prerequisite course: Environmental pollution*

5. MT02015 - Environmental Education and Communication (2 credits: 2 - 0 – 6).

The course aims to provide basic knowledge related to environmental education and communication. In addition, the course equips student some essential approaches addressing various environmental education and communication issues. The course also provides knowledge and skills which helps students improving their competencies in applying communication channels, communication skills as well as developing communication strategy for environmental policies and projects.

6. MT02017 - GIS for Environmental Studies (2 credits: 1-1-6).

The course is designed toward learn-by-doing aspect. Students will take 1-credit theory classes and the other on-computer exercises. The theory classes cover courses on GIS data and structures, spatial analysis operations and GIS applications on environmental studies. The on-computer exercises are made very practical for students to demonstrate what can be translated from theory to reality and what GIS tools are capable of solving certain environmental issues.

7. MT02046 – Environmental management: Practice (1 credit: 0 – 1 – 3).

This course introduces a number of environmental management tools and methods such as field data collection, field surveys, environmental management system assessment, data processing and scientific writing. *Prerequisite course: Environmental management*

8. MT03001 - Environmental Technology (2 credits: 2 - 0– 6).

The course Environmental technology describes mechanical, physiochemical, chemical, biological processes applied to treat pollutants; each technological process is covered the principle, impact factors, specific calculation exercises and typical applications in current waste treatment practices. *Prerequisite course: Environmental pollution.*

9. MT03002 - Environmental Technology practice (1 credit: 0 –1 – 3).

This course aims to strengthen knowledge related to mechanical, physical and chemical processes applied in environmental technology through experiments.

10. MT03003 - Wastewater treatment engineering (2 credits: 2 - 0– 6).

This course provides general knowledge related to the selection of suitable technology for wastewater treatment, technical parameters criteria and designing a wastewater treatment plant. *Prerequisite course: Environmental technology.*

11. MT03004 - Environmental Impact Assessment (2 credits: 2 - 0– 6).

The course EIA includes conceptual content, the role of environmental impact assessment in the development process; system of legal documents related to environmental impact assessment; Methods commonly used in environmental impact assessments; Content, basic structure of environmental impact assessment report and order of implementation of environmental impact assessment.

12. MT03005 - Environmental Toxicology (2 credits: 2 - 0– 6).

This course will lead students on a journey to learn about climate change stories from the past to the present and the future. Students will also understand a general picture of the effects of climate change and issues related to climate change mitigation and adaptation. Climate change policies will be discussed in this course. *Prerequisite course: Environmental chemistry*

13. MT03007 - Environmental Research Methods (2 credits: 1 - 1– 6).

This course will lead students on a journey to learn about climate change stories from the past to the present and the future. Students will also see a general picture of the effects of climate change and issues related to climate change mitigation and adaptation. Climate change policies will be discussed in this course. *Prerequisite course: Environmental pollution.*

14. MT03008 - Environmental monitoring (2 credits: 2 - 0– 6).

The course includes the principles of environmental monitoring; developing an environmental monitoring program; Sampling; Analytical principles for environmental parameters; Process of quality assurance and quality control in environmental monitoring; Data processing in environmental monitoring; Evaluation and documentation of monitoring results. *Prerequisite course: Environmental pollution*

15. MT03009 - Environmental monitoring: Practices (2 credits: 0 – 2 – 6).

The course covers the following contents: Steps to identify monitoring and environmental objects; Method of collecting secondary data and field surveys; Field measurement, sampling and storage; Measure fast analytical parameters; Analysis of organics, solid and nutrition components; Introduction of modern analytical techniques; Data processing and results evaluation; Make an environmental status report according to regulations. *Prerequisite course: Environmental monitoring*

16. MT03010 – Cleaner Production (2 credits: 2 - 0– 6).

This course introduces general knowledge on cleaner production including the concept, objectives, implementation techniques, benefits of using this tool, as well as incentives and barriers, cleaner production implementation steps, as well as some case studies on cleaner production in some industry sectors. *Prerequisite course: Environmental Audits*

17. MT03011 - Environmental Impact Assessment: Practices (1 credit: 0 – 1 – 3).

The course covers the following contents: Process of developing environmental impact assessment reports: Screening; Scoping; Collect information for environmental impact assessment; Estimating environmental impacts; Develop an environmental impact management and monitoring plan. Prepare thematic reports according to regulations.

18. MT03012 – Waste treatment project (2 credits: 0 – 2 – 6).

The course provides knowledge related to the construction of waste treatment projects for a specific case; the way for implementing project activities to complete all required products as project requirements. *Prerequisite course: Environmental impact assessment*

19. MT03013 - Air pollutant and Solid waste treatment engineering (03 credits: 03 – 0 – 9).

This course is comprised of two sections, air pollutants treatment engineering and solid waste treatment engineering. Chapter 1 to 3 dedicate to air pollutant treatment including separation, characteristics of air pollutants, dust treatment engineering, and air pollutant treatment. Chapter 4 provides general information on solid waste treatment engineering, chapter 5 and 6 present the treatment of solid waste by disposal and incineration methods. *Prerequisite course: Environmental technology*

20. MT03014 - Waste Treatment engineering: Practice (2 credits: 0 – 2 – 6).

The practice module of waste treatment techniques includes practical exercises to provide students with the process of selecting technology, suitable treatment equipment for three groups of solid waste, liquid waste and air waste. Since then, identifying existing problems in the system and proposing solutions to improve and upgrade the efficiency of the system in accordance with the current regulations in waste treatment and environmental protection.

21. MT03022 – Climate Change (2 credits: 1,5 – 0,5 – 6).

This course will lead students on a journey to learn about climate change stories from the past to the present and the future. Students will also see a general picture of the effects of climate change and issues related to climate change mitigation and adaptation. Climate change policies will be discussed in this course. *Prerequisite course: Basic meteorology*

22. MT03051 - Community-based resources management (2 credits: 2 - 0– 6).

The course introduces general knowledge on resource community-based management which includes different resource ownership types and the impact of resource ownership type on resource management efficiency, the reasons for resource community-based management; case studies of resource community-based management; Community-based resource management planning.

23. MT03057 - Practice of Environmental Biotechnology (2 credits: 0 – 2 – 6).

This course covers the following contents: Apply theoretical knowledge about environmental biotechnology to local practice; to standardize operations of isolating and selecting microorganisms for production of bio-products to environmental treatment; methods of assessing major biological characteristics, production processes and methods of effectiveness evaluation of environmental treatment bio-products.

24. MT03058 - Biotechnology for environmental treatment (2 credits: 2 – 0 – 6).

This course covers the following contents: The development history and achievements of environmental treatment biotechnology; Biotechnology in treatment of solid waste, waste water, oil pollution and soil toxins. *Prerequisite course: Basic microbiology*

25. MT03060 - Microbial technology in Agricultural production (2 credits: 1,5 – 0,5 – 6,0).

This course covers the following contents: Historical origin and prospects of microbiological technology in agriculture; Biochemical and genetic basis of microbiological technology; Basic principles of industrial microbiological culture; Types of microorganisms, advantages and disadvantages of each type of preparation; microorganisms inoculants used as fertilizer for soil improvement; Plant protection; aquaculture; Assessing the quality of microorganisms inoculants.

26. MT03061 – Modelling for Environmental management (2 credits: 1 – 1 – 6).

The course addresses the general introduction and major steps in the development of environmental models, and how they are used for decision-making, with a particular emphasis on air pollution, water quality and land use change. Topics to be covered include basic concepts of modelling, model development methods, model calibration, model validation and scenario analysis. These topics will be applied specifically to the air pollution dispersion, river water quality dynamics and land use change analysis. *Prerequisite course: Probability and statistics*

27. MT03062 – Environmental Audit (2 credits: 2 – 0 – 4).

This course covers the following contents: Overview of audits and environmental audits including concepts, classifications, necessary elements of an environmental audit; Environmental audit methods: pre-audit activities, on-site audit activities and post-audit activities; process of carrying out waste audit: requirements, scale and steps. *Prerequisite course: Environmental pollution*

28. MT03063 - Waste Audit Practice (1 credit: 0 – 1 – 2).

This course provides knowledge related to the construction of a waste audit plan for a specific object; how to deploy the project to complete the product according to the project requirements. *Prerequisite course: Environmental audits*

29. MT03064 - Environmental Administrative Management: Practice (1 Credit: 0-1-3).

The course includes two main parts: Practice to improve competencies in preparing some types of environmental records as required by the State Administration; Practice to typing some types of official documentary in the field of environmental management issued by state agencies.

30. MT03065 – Environmental protection planning (2 credits: 2 – 0 – 6).

This course provides students with planning concepts in the field of environment such as water supply, wastewater, waste, air pollution, etc. environmental status to help better planning work.

31. MT03072 - Environmental awareness: Internship 1 (4 credits: 0 – 4 – 12).

In the orientation internship course, students will be guided to practice by 03 lecturers/ department at the facilities affiliated with the faculty to understand and make a summary report on the environmental fields, such as state management of environment, resource management, pollution control and mitigation, environmental and resource management models ... Finally, students are instructed to write reports and reviews. *Prerequisite course: Environmental pollution*

32. MT03073 – Internship 2 (4 credits: 0 - 4 – 12).

The course to be implemented in Semester 7 - 3rd year includes professional internship activities at enterprises, state management agencies, and organizations in the field of environment. Learning activities and practicing internships at a general level about: State management of the environment, resource management, waste treatment, climate change and environmental surveys ... In addition, students are acquainted with the working conditions, corporate culture, communication skills, behavioral skills, thereby forming a standard working style of the environmental staffs. *Prerequisite course: Environmental impact assessment*

33. MT03076 - Environmental administrative management (2 credits: 2 – 0 – 6).

The course provides basic theories of Vietnam's administrative management on environment. Introduce and analyze the current administrative procedures in the field of environment such as environmental requirements for enterprises, administrative sanctions in improving environmental policy enforcement, resolving complaints and denunciations

about the environment. Through the course, students complete the competencies and knowledge which are essential for different job positions in state administration system in the field of environment. *Prerequisite course: Environmental law*

34. MT03077 - Spatial analysis For Environmental Studies (2 credits: 1-1-6).

This is an advanced course on spatial analysis/geostatistics that is tailor-made specifically for environmental studies. The course focusses on geo-technics to develop methods/tools for better approach in monitoring, sampling and assessing environmental quality, such as air-quality (pollution spread), soil quality (soil properties) and water quality. Students are expected to learn how to use GIS environmental software to tackle. *Prerequisite course: GIS for environmental studies*

35. MT04999 – Graduation Thesis (10 credit: 0 – 10 – 30).

In the thesis, students are instructed by a lecturer to apply the learned knowledge, experiences and scientific research methods program to the implementation of a scientific research or applied project in the fields of environmental science such as environmental management state, resource management, pollution control and mitigation, environmental communication and development of environmental and resource management models ... Finally, students are instructed by the instructor to write the report on the science / project research and present it before the graduation thesis council. *Prerequisite course: Internship 2*

36. QL02006 – Environmental Geology (2 credits: 02-0-6).

This course covers the following contents: General concepts, subject's contents and duties; earth formation process and structure; geological functions; environmental catastrophe and conduct solutions; Medical geology

37. QL03047 - Biological indicators for environment (2 credits: 2-0 – 6).

The course consists of five chapters with the following contents: concepts of environmental indicator organisms; role of environmental biological indicators; methods used for studying in environmental indicator organisms; biological indicators for water, air and soil environments. Exercises and discussions about using biological indicators in fields of research, assessment and environmental treatment. *Prerequisite course: General biology*

38. QL03075 – Environmental Hydraulics (02 credits: 1,5 - 0,5 - 06).

This course provides general knowledge of water resources including characteristics of quality and quantity and water resources movement. Issues related to water resources economy and water resource planning and management. This module is also designed to help students connect scientific knowledge and practice with the purpose to help learners better understanding natural problems in term of water resources and offer some scientific explanations and solutions to improve currently existed issues in water resources management.

39. SN03053 - English for Environmental Science (2 credits: 2 - 0 - 6).

This course consists of the following contents: Useful Language for Scientific Presentation; Basic ecology; Environment and Sustainable Development; Environmental pollution; Problems in Pollution control. *Prerequisite course: English 2*