POLYTECHNIC OF MEĐIMURJE IN ČAKOVEC

COURSE SYLLABUS

ACADEMIC YEAR: 2020/2021

1. GENERAL COURSE INFORMATION

1.1 Course name	Environmental protection instruments			
1.2 Study program/s	Undergraduate professional study Sustainable Development			
1.3 Course status (O,E)	O	**1.6 Mode of instruction (number of hours)**	**Lectures**	30
1.4 Course code	4057		**Exercises**	30
1.5 Course abbreviation	IZO		**Seminars**	-
1.6 Semester	3		**E-learning**	Merlin
1.7 ECTS	5	**1.7 Place and time of instruction**	The premises of the Polytechnic of Međimurje in Čakovec, according to the schedule published on the website	

2. TEACHING STAFF

2.1 Course leader/s-title	Goran Sabol, pred.	**contact**	goran.sabol@mev.hr
		contact	
2.2 Assistant/s- title		**contact**	
		contact	
2.3 Instruction held by-title		**contact**	

3. COURSE DESCRIPTION

3.1 Course goals

Acquisition of knowledge about command-supervisory and economic instruments of environmental protection, system and tools for environmental management and standards used for the purpose of continuous improvement and implementation of the general environmental protection policy.

3.2 Prerequisites

There are no prerequisites

3.3 Course outcomes

After successfully completing the course, students will be able to:

I1	Analyze the legislative aspect related to environmental protection instruments - R4
I2	Assess whether the spatial intervention requires the preparation of an environmental impact assessment (EIA) study - R5
I3	Assess likely significant environmental impacts that may arise from the implementation of the strategy, plan or program - R5
I4	Assess the acceptability of the project with regard to the environment - R5
I5	Organize the necessary documentation in accordance with legislation - R6
I6	Predict the sources of risk of environmental interventions - R5

3.4 Course content

Introduce students to environmental instruments

3.5 Types of coursework

X	Lectures	X	Exercises		Blended e-learning	X	Individual activities		Laboratory
	Seminars and workshops		Distant learning		Field classes		Multimedia and network		Mentorship
	Other								

3.6 Language of instruction

Croatian/English

3.7 Monitoring students' work (enter the number of ECTS credits for each activity so that the total number of ECTS credits is equal to the total ECTS value of the course, 1 ECTS = 30 hours)

2	Class attendance	0,5	Seminars		Essay
0,5	Class activity		Project		Report/paper
1	Midterm exams		Practical task		Continuous knowledge check
0,5	Written exam		Experimental work		
0,5	Oral exam		Research		

3.8 Assessment and evaluation of students' work during classes and at the final exam

Activity specification	Percent %	Points
Assessment during instruction		
Attendance	2,5%	2,5
Class activity	2,5%	2,5
Seminar/ project/ essay	10%	10
Midterm exam 1	42%	42
Midterm exam 2	43%	43
Exam assessment for the students who failed to fullfil all the obligatory requirements during the semester		
Written exam	*50%*	*50*
Oral exam	*50%*	*50*
Total:	**100%**	**100**

3.9 Assessment criteria – analysis per learning outcomes

Ways of evaluating learning outcomes						
	Attendance	**Activity**	**Mid-term exam 1**	**Mid-term exam 2**	**Practical work**	**Total**
Outcome 1			10			10
Outcome 2			10	15		25
Outcome 3			22			22
Outcome 4				23		23
Outcome 5				5		5
Outcome 6			2,5	5		7,5
Outcome not-related	2,5		2,5	2,5		7,5
Total	**2,5**		**47,5**	**50,5**		**100**

Grading of outcomes (in order to pass the mid-term exam/exam the student must achieve at least 50% points for each learning outcome)

Points	Grade
89 – 100	excellent (5)
76 – 88	very good (4)
63 – 75	good (3)
50 – 62	pass (2)
0 – 49	fail (1)

3.10 Specific features related with taking the course

If the student collects 50% of the points of each outcome directly access orally exam. If a student does not achieve a sufficient number of points on the midterm exam, he cannot take the next midterm exam.

Once won points in intermediate exams for each learning outcome are no longer deleted unless the student decides to correct the result for each learning outcome, whereby the points won until then are deleted and newly achieved points for that learning outcome are entered. A student cannot access the exam period if he / she has not submitted and presented seminar paper. The final grade is obtained on the oral part of the exam.

	Full-time students are required to attend at least 70% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. Part-time students are required to attend at least 30% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. If the student has not fulfilled all the obligations set by the course, he is obliged to attend the lectures again and meet the conditions for taking the exam. Attendance can be offset by online tuition, organised webinars and added assignments given by teachers. One lesson lasts 45 minutes, and several hours form a teaching unit. Absence from one teaching unit is counted as one absence. Delays and apologies are recorded separately. In that case, if the student missed more than 50% of classes, and has a justifiable reason/apology, the request should be submitted to the Department Council, which then decides on the justification of student absences with the obligatory opinion of the course leader.	
3.11 Students obligations	Full-time students are required to attend at least 70% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. Part-time students are required to attend at least 30% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. If the student has not fulfilled all the obligations set by the course, he is obliged to attend the lectures again and meet the conditions for taking the exam. Attendance can be offset by online consultations, organized webinars, and added assignments given by teachers. One lesson lasts 45 minutes, and several hours form a teaching unit. Absence from one teaching unit is counted as one absence. Delays and apologies are recorded separately. In the event that a student is absent from more than 50% of classes, and has a justifiable reason / apology, a request should be submitted to the Department Council, which then decides on the justification of student absences with the obligatory opinion of the course leader.	
3.12 Written assignments	Seminar papers must be computer written and may have a maximum of 12 text cards (Times New Roman, font 12) from introduction to conclusion, together with pictures, table appendices, etc. Seminar papers must have an adequate title page, content, marked pages and literature. The seminar paper should be divided into chapters and contain a list of references and a list of figures and tables and graphs and finally a summary / conclusion in the size of 250 words. The student guarantees the authenticity of the work with his signature.	
3.13 Required reading	1.	Legislation of the Republic of Croatia (strategy, plans, laws, regulations and bylaws related to environmental protection)
	2.	Methods of Environmental and Social Impact Assessment, Riki Therivel, Graham Wood, odabrana poglavlja
3.14 Additional reading	1.	Ortolano, L.: Environmental Regulations impact Assessment, International edition, John Wiely & Sons, 1997.
	2.	Manual for Classification and Prioritization of Risks Caused by Major Accidents in Process and Related Industries, United Nations Environment and Industry Program Office, publisher: Ministry of Environmental Protection and Physical Planning of the Republic of Croatia, Zagreb, 2001.
	3.	Environmental Performance Review of Croatia, Second Review, IN, 2014.
	4.	SEA Croatia, IPA 2010 project: Capacity building for the implementation of the Strategic Environmental Assessment (SEA) at the regional and local level, 2014
4 ADDITIONAL COURSE INFORMATION		

4.1 Quality control	The quality of the program, teaching process, teaching skills and level of mastery of the material will be established by conducting a written evaluation based on questionnaires, and in other standardised ways and in accordance with the by-laws of the Polytechnic of Međimurje in Čakovec.
4.2 Contact the teacher	Students can contact the teacher during the office hours and during classes, while for short questions and explanations they can contact him/her any day during working hours by coming in person or by landline. It is also possible to ask questions by e-mail, which will be answered in 48 hours at the latest. It is desirable for students to come as often as possible for any possible questions during the teacher's office hours.
4.3 Information about the course	It is the obligation of each student to be regularly informed about the course. All notifications about the classes or possible postponement of classes will be posted on the bulletin board and on the website of the Polytechnic at least 24 hours in advance.
4.4 Course contribution to the study program	I1 - Interpret information, ideas, problems and solutions to professional and general audiences I4 - Advocate an ethical approach to work and to associates in project teams I5 - Critically evaluate arguments, assumptions and data in order to form an opinion and contribute to the solution of the problem I8 - Interdisciplinary to solve engineering problems of sustainable development I10 - Interpret European Union legislation in the field of sustainable development I23 - Manage water, air, soil, waste and energy in a sustainable way I24 - Propose a program for remediation of polluted soil, water and air in compliance with the principles of sustainable development I25 - Identify significant environmental aspects within the organization for the purpose of management and compliance with standards and obligations I27 - Assess potential risks to the environment and cooperate in the preparation of environmental studies and studies on the impact of the project on the environment

5. ANALYSIS OF COURSE TOPICS (the number of hours is equal to the number of lectures and exercises of the course)

LECTURES

Hours	Topic and description	Method	Learning outcomes	Course outcome
1. 2.	Introduction to legislation and environmental protection instruments	Presentation, PP presentation	Explain the meaning of basic concepts related to environmental instruments	I1
3. 4.	Strategic assessment of the impact of the strategy, plan and program on the environment	Presentation, PP presentation	Interpret SEA	I1, I4, I5
5. 6.	Environmental impact assessment - significance and role in the management and decision	Presentation, PP presentation	Interpret the content of the EIA	I2
7. 8.	Basic steps in the application of environmental impact assessment	Presentation, PP presentation	Apply EIA	I1, I3, I4, I5
9. 10.	Main sources of environmental risks and accidents (domino effect, consequences), risk matrix	Presentation, PP presentation	Define the main risks to the environment	I2, I3, I6

11. 12.	Environmental impact assessment study - introduction, content and methods of study preparation	Presentation, PP presentation	Analyze the content of the EIA	I1, I4, I5
13. 14.	Environmental impact assessment - preparation of reports, assessment, decision-making, impact assessments, application, verification, project management	Presentation, PP presentation	Use and interpret reports	I3, I4
15. 16.	Environmental permit - goals and purpose, obligations of the operator, jurisdiction	Presentation, PP presentation	Interpret the environmental permit	I4
17. 18.	Development and submission of applications for obtaining an environmental permit for plants, solutions and spatial plans as instruments of environmental protection	Presentation, PP presentation	Use the spatial plan as an instrument of environmental protection	I5
19. 20.	Transboundary environmental impacts of strategy, plan and program, interventions and facilities	Presentation, PP presentation	Define transboundary impact	I2, I5
21. 22.	Environmental protection measures for interventions for which the EIA obligation is not prescribed	Presentation, PP presentation	Define protection measures	I2
23. 24.	Environmental quality standards and technical standards of environmental protection	Presentation, PP presentation	Define technical standards for environmental protection	I4
25. 26.	Analysis of examples from practice (EIA, studies, environmental permits ...)	Presentation, PP presentation	Analyze the example	I1
27. 28.	Economic instruments of environmental protection	Presentation, PP presentation	Define economic instruments of environmental protection	I5
29. 30.	Emissions trading system, voluntary economic instruments for environmental protection and examples from practice	Presentation, PP presentation	Recognize voluntary economic inst.	I3, I5
EXERCISES/ SEMINARS				
Hours	**Topic and description**	**Method**	**Learning outcomes**	**Course outcome**
1. 2.	Analyzing and interpreting legislation	Independent task	Explain the meaning of basic concepts related to environmental instruments	I1
3. 4.	Analysis of strategic assessments	Independent task	Analyze examples of SEA procedures	I1, I4, I5
5. 6.	Examples of good practice of the EIA procedure	Independent task	Recognize the example and	I2

			transparency of the EIA procedure	
7. 8.	Application of EIA	Independent task	Apply the EIA study	I1, I3, I4, I5
9. 10.	Development of environmental impact assessment requirements and environmental impact studies	Independent task	Use the assessment requirement	I2, I3
11. 12.	Methodological preparation of the study	Independent task	Analyze the preparation of the EIA study	I1, I4, I5
13. 14.	Reports	Independent task	Use and interpret reports	I3, I4
15. 16.	Analysis and examples of environmental permit	Independent task	Analyze an example of an environmental permit	I4
17. 18.	Making a request	Independent task	Use the environmental permit application	I5
19. 20.	Analysis of transboundary impacts and legislation	Independent task	Analyze transboundary impact	I2, I5
21. 22.	Analysis of environmental protection measures	Independent task	Analyze environmental protection measures	I2
23. 24.	Analysis of technical environmental standards	Independent task	Analyze technical environmental standards	I4
25. 26.	Example analysis (EIA, environmental permit ...)	Independent task	Analyze the example of EIA and environmental permits	I1
27. 28.	Analysis of economic instruments and examples from practice	Independent task	Analyze economic instruments of environmental protection	I5
29. 30.	Example of emissions trading	Independent task	Understand the process of trading emissions	I3, I5