



Universidad Juárez del Estado de Durango
Facultad de Ciencias Forestales



Learning Unit Programme
With an integral professional competences approach

I. LEARNING UNIT GENERAL DATA

1. learning Unit Name			2. Code		
Environmental Economy			8505		
3. Academic Unit					
FORESTRY SCIENCES FACULTY					
4. Academic programme			5. Level		
ENVIRONMENTAL MANAGEMENT ENGINEERING			Higher		
6. Training Area					
DISCIPLINARY					
7. Academy					
Environmental Management					
8. Modality					
Mandatory	X	Course	X	Attendance	X
Elective		Course-workshop		Non-attendance	
		Workshop		Mixed	
		Seminar			
		Laboratory, field practice, etc.	X		
		Professional Practice			
		Academic Stay			
9. Pre-requirements					
Resources sustainability, Environmental regulations, Environmental Management					

10. Theory hours	Practice hours	Independent study hours	Total hours	Credits
4	0	0	4	4
11. Names of the teachers who participated in the development and/or modification of the programme				
Horacio González Ramírez, Ph. D., Liliana Banda Enríquez, M. C.				
12. Date of development		Date of modification	Date of approval	
02/08/2015		02/02/2016	10/03/16	

II. LEARNING UNIT SPECIFIC DATA	
13. Presentation	
<p>This learning unit strengthens the Environmental Management Engineering intended learning outcomes when developing the competences which allow him to understand and establish the importance of the responsible and reasonable management and exploitation of natural resources; identifying the causes that generate environmental problems and possible solutions.</p> <p>Being aware of the economic importance of the natural resources, and, through the use of tools, develop policies and instruments for a sustainable development of the natural resources in the region, the country and the world.</p>	
14. Integral professional competences to develop in the student	
Generic competences	<ul style="list-style-type: none"> • Social responsibility and citizen commitment • Oral and written communication capability • Skills in the use of TICs • Skills for searching, processing and analysing information coming from different sources • Capability for identifying, posing and solving problems • Capability for decision taking
Professional competences	<ul style="list-style-type: none"> • Environmental quality management and audit systems • Consulting and environmental impact assessment • Natural environment management • Water quality and treatment management • Air quality and treatment management • Soil quality and treatment management
General purpose of the course	Designing a project which proposes a solution for a specific problem and presents it for assessment.

15. Joint of axes				
Ethics, research and environment				
16. development of the course				
Module 1	Introduction to environmental economy			
Intended learning	Learning contents	Learning product(s)	Strategies	Teaching resources and materials
Determining the diverse environmental problems and relate them to economy, for recognizing the value of the environment and defining environmental quality assessment methods through a Conceptual Map.	Environmental problems	Working in teams they will develop a Conceptual Map which structures the different economy components and their relation to the environment. Likewise, they will develop a questionnaire which lets determine if their classmates understood what they presented in the conceptual map.	- Documentary research - Collaborative work	Books Magazines Web pages The ones corresponding to a classroom
	The problem from the economy point of view			
	The value of environment	Individually, they will ask a question that will have to be answered by the team who presents the conceptual map.		
	Environmental quality assessment methods	Individually, at the end of the module, they develop pan essay containing the studied subjects.		
Module 2	Environmental quality			
Intended learning	Learning contents	Learning product(s)	Strategies	Teaching resources and materials
Identifying the environmental	The discount of the future	Working in teams in a debate they will explain the necessary factors for a	- Documentary research - Collaborative work	Books Magazines

factors and their contribution to economy, showing them through a debate	Cost-benefit analysis	sustainable development and their application in the environment. They will establish a dynamic that allows the participation of the classmates, who will have to bring a question for the participants. Individually, at the end of the module, they develop pan essay containing the studied subjects.		Web pages The ones corresponding to a classroom
	Environmental indicators			
	National and environmental accounting			
	Environmental policy			
Module 3	Environmental Enterprise			
Intended learning	Learning contents	Learning product(s)	Strategies	Teaching resources and materials
Identifying the different impacts that are generated by the diverse enterprises and the different choices for them for the environment conservation and that contribute to the economy; by	Enterprise and environment	Working in teams they develop an electronic presentation (in English) where they explain the diverse problems that natural resources are suffering.	<ul style="list-style-type: none">- Documentary research- Integration of the necessary information for the Project- Organization of the information for the Project- Demonstration of	Books Magazines Web pages The ones corresponding to a classroom Computer
	Underdevelopment and environmental degradation	Individually, they develop the report of the practice (guided visit) For each topic, each of the students will ask a question to the team who presents it.		
	Development, international trade and environment	In teams, they develop a Project which		

means of an electronic presentation (PowerPoint)	Development and environment: oil and tropical forest	poses a problem and offers a solution.	the Project through a PowerPoint presentation for its assessment.	
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17. Performance assessment:

Performance evidence(s)	Performance criteria	Application scopes	percentage
Conceptual Map questions Essay	Fulfilling what is established in the corresponding rubric for the different products. Note: the sum of the activities performed in each module is equivalent to the 80% of the score (summative), the remaining 20% corresponds to the formative evaluation	Regional, national	Conceptual map 55%, Questions 05%, Essay 20%
Debate Questions Essay			Debate 55%, Questions 05%, Essay 20%
Electronic presentation Practice Report Question Project			Electronic Presentation 30%, Practice report 05% Question 05% Project 40%

18. Evaluation criteria:	
Criterion	Value
Formative Evaluation	<p>20% considering the following values: respect, tolerance, ethics, and honesty. This criterion considers:</p> <ul style="list-style-type: none"> • Co-evaluation: the students evaluate their teammates regarding their performance in each of the developed activities (10%) • Self-evaluation: each student evaluates himself regarding his performance in class (5% per module) • Hetero evaluation: the teacher evaluates the students (5% per module)
Summative evaluation	80% fulfilment of the required products in each module according to the rubrics
Criteria summation	100%
19. accreditation	
For accrediting the course, a minimum grade of 6.0 is required and covering the minimum requirements established in the rubrics.	
20. Information sources	
Basic	<p>Introducción a la Economía Ambiental Die Azqueta Oyarzun, Segunda Edición 2007, McGraw Hill</p>
Complementary	<p>De la Economía Ambiental a la Economía Ecológica Federico Aguilera Klink y Vicent Alcántara (Comp.)</p> <p>Economía Ambiental: Lecciones de América Latina Instituto Nacional de Ecología</p> <p>Economía Ambiental Juan Carlos Mendieta</p>

	http://www.mercadosdemedioambiente.com/actualidad/10-v-deos-para-la-educaci-n-ambiental/ http://www.medioambiente.gloobal.net/pdf/folleto-1.pdf http://www.ai.org.mx/ai/archivos/seminarios/cambio_climatico/Problemas%20ambientales%20globales.pdf
21. Profile for the teacher who imparts this learning unit	
Bachelor or master in the administrative, business or economy areas	

