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 Impact Assessment	**8510**
3. Academic Unit	
FORESTRY SCIENCES FACULTY	
4. Academic programme	**5. Level**
Environmental Management Engineering	**Higher**
6. Training Area	
Discipline	
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
Geographic Information Systems, Environmental Legislation, Ecological Planning, Territorial Planning, Environmental Management

10. Theory hours	Practice hours	Independent study hours	Total hours	Credits
3	3	0	6	6

11. Names of the teachers who participated in the development and/or modification of the programme
ROBERTO FLORES ZAMORA

12. Date of development	Date of modification	Date of approval
02/12/2014		10/12/2014

II. LEARNING UNIT SPECIFIC DATA

13. Presentation

This course promotes the learning of the basic principles and applied and current methodologies, as well as their concepts on environmental impact assessment. During the development of the course the student will appropriate the various methods for the preparation of environmental impact studies in its various modalities, considering those related to changes in land use, preventive reports, impact statements and justificatory technical studies, considering the regulatory aspects in the matter. The students will develop competences for the interpretation of the elements to be considered for the description of the environment and the environmental and socioeconomic scenario, as inputs for the identification of the impacts and mitigation measures. Although the curriculum does not include hours of independent study, in practice students must attend a significant percentage of time independently to present the products. The course is related to other subjects of the curriculum giving congruence to the graduation profile. The subject is compulsory in the seventh semester and is supported by the prerequisite subjects already mentioned that provide the previous elements.

14. Integral professional competences to develop in the student

Generic competences	Instrumental 1. Capability for analysis and synthesis. 2. Capability for organization and planning. 3. Oral and written communication. 4. Computer skills related to the field of study. 5. Information management capability. 6. Problem solving. 7. Decision making. Personal 8. Team work

	9. Critical thinking Systemic 10. Ethical commitment 11. Self-directed learning 12. Creativity 13. Leadership and entrepreneurial spirit 14. Motivation for quality 15. Sensitivity to environmental issues 16. Ability to apply theoretical knowledge in practice 17. Use of the internet as a means of communication and as a source of information 18. Ability to communicate with non-experts in the field
Professional competences	1. Consulting and evaluation of environmental impact. The graduate provides consulting services and strategic evaluation to companies and institutions regarding the environmental impact based on ethical and sustainability criteria. 2. Management of the natural environment. The graduate manages natural spaces and their use evaluating environmental risk and supported by advanced technologies with ethical and professional criteria.
General purpose of the course	That the student can plan a project of an environmental impact study applying the principles of impact assessment in a regulatory framework and ethics and respect for the environment favouring the principles of ecological balance and protection of the human population.

15. Joint of axes

The learning unit is articulated with the transversal axes established from the educational model and congruence and strengthens the axes of research, ethics and values and environmental awareness. The unit is integrated into the area of disciplinary training

16. development of the course

Module 1	Normative framework and types of study			
Intended learning	**Learning contents**	**Learning product(s)**	**Strategies**	**Teaching resources and materials**

The student distinguishes the concepts and explains the relationship of the normative framework with the different types of studies.	Introduction and concepts of environmental impact assessment Legal framework and types of studies	Prepare a report and explain the different concepts and importance of impact assessment systems. Make a conceptual map of the subject. Exhibition using modern technology developed in equipment and presented before the plenary. Direct discussion of the contents of the types of studies. Written test that allows inferring the application of the normative framework.	Read the general documents on the subject. Write synthesis and prepare electronic exhibition and develop a conceptual map. Presentation on the regulatory framework applicable to forestry and environmental impact. In group dynamics reaffirms the contents. Make a comparative analysis of the contents of the studies (IP-MIA) in summary before the plenary.	Documents, projector, PPW presentation, posters, internet use. Reading of normative documents in forestry and environmental matters, projector, balloons, posters, methodological guides.

Module 2	Methodology of the Environmental Impact Assessment			
Intended learning	**Learning contents**	**Learning product(s)**	**Strategies**	**Teaching resources and materials**
The student uses the methods of environmental impact assessment	Impact assessment methods	Report A comparative analysis of the methods. Judgment of value on its application according to the type of study.	He presents his comparative analysis before the plenary session. Make a value judgment application	Projector, reading documents, evaluation tools, internet use

according to the type of study and plans mitigation measures that correspond			about the methods. Co-evaluation is practiced	
	Resolution of the matrix methodology to assess the impact and design mitigation measures	Study built in accordance with the official guidelines and the regulatory framework demonstrating the design of mitigation measures. Visit to sites with projects for the identification of environmental impacts and mitigation measures, a practice report is delivered with the inputs used.	Present to the plenary the progress and final version in the construction of your project. APP Co-evaluation is practiced.	Projector, assessment instruments such as checklist, methodological guides and content indexes.
Module 3	Management of the Environmental Impact Assessment			
Intended learning	**Learning contents**	**Learning product(s)**	**Strategies**	**Teaching resources and materials**
Judges and bases the process of an EIA, under the official schemes for the management of the project	Procedures for a project on impact and land use change.	Presentation of project executive summary. Report of the official procedure before the federal or state instance	Present the executive summary of your project to the plenary. Co-evaluation is applied.	Projector, consultation of paperwork guides on environmental and forestry matters, at the federal and state levels: http://www.semarnat.gob.mx/ http://srnymadgo.gob.mx
	Follow-up on terms and conditions of an IP and MIA resolute.	Report on the elements of compliance reports	Develop a report and present the contents of the reports before the plenary session. Appreciate the key indicators and judge the importance of follow-up.	Examples of resoluteness, key indicators, and commitments derived from a project in forestry and environmental matters

17. Performance assessment:			
Performance evidence(s)	**Performance criteria**	**Application scopes**	**percentage**
Reports, Exposition, Abstracts, EIA IP or MIA Project, self-assessment and co-evaluation checklists.	In all the works content, extension and presentation, use of tools, capability for explanation, analysis and synthesis, understanding and handling of the debate, defence before group, team work, delivery opportunity, value judgments are valued.	Present the executive summary of your project to the plenary. Co-evaluation is applied.	Projector, consultation of paperwork guides on environmental and forestry matters, at the federal and state levels: http://www.semarnat.gob.mx/ http://srnymadgo.gob.mx

18. Evaluation criteria:	
Criterion	**Value**
Formative Evaluation	Teamwork, attendance and punctuality, timeliness in delivery, attitude and respect for people and property. 25%
Summative evaluation	Form and content of products, management of the files, handling of the debate, daily participation in class, written test results, field practice report. 75%
Criteria summation	100%

19. accreditation
The ideal condition is that the development of the competition is evident and adheres to the percentages established in the different criteria, however minimums are established to assess the degree of mastery of the competence and obtain the credits of the Learning Unit, in accordance with the following: 50% of their performance or summative evaluation; 10% of the formative evaluation; (self- assessment and co-evaluation).

20. Information sources	
Basic	Batelle Columbus, Lab., 1972. Environmental Evaluation System for Water Resource Planning. Springfield. Conesa Fernandez.-Vitora, V., 2010. Guía metodológica para la evaluación del impacto ambiental. Ed. Mundi Prensa,

	cuarta edición, Madrid, España. ISBN: 9788484763840. Espinoza Guillermo, 2001. Fundamentos de Evaluación de Impacto Ambiental. Banco Interamericano de desarrollo, BID, y CED, Santiago de Chile. Gómez Orea D. 2010, Evaluación de impacto ambiental, un instrumento preventivo para la gestión ambiental. ISBN: 9788484760849
Complementary	INE. SEMARNAP, 2000, The Evaluation of the Environmental Impact, Achievements and Challenges for Sustainable Development, 1995-2000. First edition. ISBN 968-817-465-3 SEMARNAT. Methodological guides and indexes of the ETJ and MIA, portal of procedures, http://www.semarnat.gob.mx/ SRNyMA Durango.http: //srnymadgo.gob.mx SEMARNAT,Portal. http://www.semarnat.gob.mx/transparencia/transparenciafocalizada/impactoambiental/Paginas/impactoambiental.aspx visits August 09, 2017
21. Profile for the teacher who imparts this learning unit	
Graduate environmental and specialist subject in the area of environmental impact assessment and management of studies and projects to the federal and state authorities	