UNIVERSIDAD JUÁREZ DEL ESTADO DE DURANGO

FACULTY OF FORESTRY SCIENCES

Forestry Sciences Engineering

Learning Unit Modules

Focused in Integral Professional Competences

I. GENERAL LEARNING UNIT

1. Identification	2. Code	3. Semester	4. Training area
Environmental Education	BEA12	Second	Basic

5. Mode					
Compulsory	X	**Elective**			
Classroom		**Non-Attendance**	X	**Mixed**	
Laboratory		**Field practices**		**Guided tours**	

6. Class shedule (hours per week)				
Theory	**Practice**	**Independent study**	**Total hours**	**Credits**
2	2	2	6	6

7. Person responsible for the Unit Learning
Juan Carlos Herrera Cárdenas

II. DATA SPECIFIC LEARNING UNIT

8. Objectives

Development of competences to promote the interest of analyzing environmental problems, causes and consequences of environmental deterioration to act responsibly, with attitude and ethics about environmental problems.

Contribute to sustainable development in a critical and responsible manner.
Changing attitude for the solution of environmental problems
Having an environmental conscience.
Understanding and interpreting the biological, economics and social character of natural ecosystems.
Contributing to the ecological balance.

9. Presentation.

Environmental Education is a learning unit which is part of the academic model; it is an essential part of the integral formation of the all students and is a seal of UJED.

This learning unit is required and is more than a transmission of knowledge about environmental problems, it is essential to promote sustainable development and improve the quality of life and welfare of the population.

This course contributes to the development generic competences raised in the profile

This course is located in the basic training area, is taught virtually, in the *Moodle* (Modular Object Oriented Distance Learning Environment) web platform.

10. Professional competences to develop in students.			
Knowledge	Skills	Attitudes	Values
Present and reliable methodologies for quantifying forest resources. Ecological links among beneficial and harmful organisms that make up the ecosystems. Complex ecosystem that provides environmental and economical benefits for society. Interaction between society and forest resources.	Understanding the ecosystem as a complex that provides environmental and economical benefits for society. Promote the interaction between society and forest resources for proposing viable solutions for the benefit of both society and ecosystems. Designing and adapting forest use techniques that carry a sustainable management of forest resources.	Interest in preserving nature. Collaboration and participation in team works. Interest in self learning and continuous learning. Open to criticism and with availability to accept them Proactive in decision making strengthening the forest sector.	Respect Responsibility Commitment

11. Course topics
Unit I: The Study of Nature Unit II: Natural Resources Unit III. Ecological Science Unit IV: The Ecosystem. Unit V: The Environment Unit VI: The World a Complex System Unit VII: Environmental Science Unit VIII: The four environmental principles Unit IX: The Precautionary Principle Unit X:Environmental Pollution Unit XI: The Environmental Crisis

Unit XII:Environmental Management Unit XII: Sustainable Development

12. Evaluation criteria	
Formative evaluation	30%
Summative evaluation	30%
Self assessment	10%
Co-evaluation	10%
Evaluation hetero	20%
Acreditaton	
Performing activities	40%
Exams	20%
Homeworks	20%
Analysis scientifics articles	20%

13. Information sources

Basic

DAJOZ, R. (1979). *Tratado de Ecología*. Mundi – Prensa, Madrid.

ENKERLIN, E.C, GARZ R.A; VOGEL, E. (1997). *Ciencia Ambiental y Desarrollo Sostenible*. Thompson Editores. México 1997.

HERRERA C, J.C. (2008).-*Introducción al Estudio del Medio Ambiente*. Antología. Área de Formación Básica. Dirección de Planeación y Desarrollo Académico de la UJED.

HERRERA C, J.C. (2014). *Glosario de Términos Ambientales*. Antología. Facultad de Ciencias Forestales de la UJED.

LEAKEY, R. y R. LEWIN. (1997).*La Sexta Extinción*. Colección Metatermas. Tusquets. España.

LOPEZ, V.M. (2006) *Sustentabilidad y Desarrollo Sustentable*. Origen, Precisiones Conceptuales y Metodología Operativa. Instituto Politécnico Nacional.

ODUM, E. ;GARY, W. (2006) *Fundamentos de Ecología*. Thompson Editores. S.A. de C.V.

OWEN. O. (1977).Conservación de Recursos Naturales. Editorial Pax. México.

SEMARNAT (2009).- ¿Y el Medio Ambiente? Problemas en México y el Mundo. Impreso en México.

SEMARNAT (2010).- *¡Aprendamos a Cuidar el Medio Ambiente*. Impreso en México.

SMITH, L.;SMITH, M. (2001). *Ecología*. Pearson Educación S.A. Madrid, España.

TYLER M.J. (2002). *Ciencia Ambiental*. Preservemos la Tierra. Quinta Edición Thompson Editores, México

Complementary

Colleccion Informative Bulletin. Con-Ciencia Ambiental. Edition 1-43

http.//www.semarnat.gob.*mx/informaciónambiental*

http://www.ecoportal.net/Servicios/Glosario_Ambiental/A

http://www.ecoestrategia.com/articulos/glosario/glosario.pdf

http://www.ambientum.com/diccionario/listado/diccionario.asp?letra=a

http://www.vitalis.net/recursos/glosario-ambiental/

http://www.elcastellano.org/glosario_ambiental.pdf