



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
Forest Soils	DSF16	TIRD	Discipline

5. Mode					
Compulsory	X	Elective			
Classroom	X	Non-Attendance		Mixed	
Laboratory	X	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 subject.
Raúl Solís Moreno

II. DATA SPECIFIC LEARNING UNIT

8. Objectives
The student is able to apply the acquired knowledge in the soils management for decision-making in forestry.
The student is able to analyze the natural resources problems and propose solutions.
The student has the ability to apply reasoning to propose actions for new scenarios in the forest sector in the soil management area.

9. Presentation.
It focuses on the basic characterization of soils and knowledge as well as on the interrelationships with vegetation, hydrodynamics and wildlife habitat. In order for the students to understand the concept of integrated management of natural resources and processes that develop between the soil-water vegetation, and to diagnose and define actions in the management of soils, for promotion, protection and recovery. Besides of handling cartography and the application of general foundations in Forestry and its effects on soil development.



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10. Professional competences to develop in students.			
Knowledge	Skills	Attitudes	Values
Current and reliable methodologies for quantifying forest resources. Ecological links among beneficial and harmful organisms that make up the ecosystems. Forest use techniques that carry a sustainable management of forest resource, with a focus on soil resources.	Identifying the ecological links among beneficial and harmful organisms that make up the ecosystem. Understanding the ecosystem as a complex that provides environmental and economic benefits for society. Perform investigation of forest aspects, using forest lands as laboratories. 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. Availability for learning from errors. Availability for collaborating in the profession tasks. Being objective in the handling of information Participating in multidisciplinary scientific and technical teams aimed to the solution of problems that the forest sector has.	Respect Honesty Responsibility Commitment Ethics Unity



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11. Course topics

Unit I: Introduction to the study of soil.
Unit II: Origin and evolution of soils.
Unit III: Soil biology and management.
Unit IV: Soils classifications.
Unit V: Soils types in Mexico.

12. Evaluation criteria

Formative evaluation
Summative evaluation
Self assessment
Co-evaluation
Hetero-Evaluation

13. Information sources

Basic

Pritchett, W.L.1986. Suelos forestales. 1ª Edición. Editorial Limusa. México.

Honorato, R. 2000. Manual de edafología. Cuarta Edición Alfaomega . Chile. (Capítulos 1 a 4))

Protección, restauración y conservación de suelos. Manual de obras y prácticas.
CONAFOR-SEMARNAT. México. 2002. Memoria Nacional

Evaluación de la degradación del suelo causada por el hombre en la República Mexicana
escala 1:250 000. 2001-2002. SEMARNAT

Complementary

Rodríguez, F. H, Rodríguez, A. J. 2002. Métodos de análisis de suelos y plantas. 1ª Edición. Editorial Trillas. México. (Capítulos 1, 2 y 4).

Secretaria de Medio Ambiente y Recursos Naturales, Colegio de Postgraduados. 2001. Evaluación de la degradación del suelo causada por el hombre en la República Mexicana, escala 1:250,000. Memoria Nacional.

Valencia, I. C.E., Hernández, B. A. 2002. Muestreo de suelos. Preparación de muestras y guía de campo. 1ª Edición. Universidad Nacional Autónoma de México. Facultad de Estudios Superiores Cuautitlán.