



*Learning Unit Modules*  
*Focused in Integral Professional Competences*

**I. GENERAL LEARNING UNIT**

1. Identification	2. Code	3. Semester	4. Training area
Plant Biology	BBV03	First	Basic

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

6. Class shedule (hours per week)				
Theory	Practice	Independent study	Total hours	Credits
2	2	1	5	5

7. Person responsible for the subject.
Celina Palacios Mendoza

**II. DATA SPECIFIC LEARNING UNIT**

8. Objective
The student will identify and understand the similarities and fundamental differences, at a histological, anatomical and morphological level among plant organisms, to understand the processes that regulate growth and development.

9. Presentation.
<p>This program as a learning unit is aimed to train the student in the fundamental aspects of plants, analyzing the cell structure and function, and their relationship to each plant tissues, emphasizing similarities and differences in different plant organs. Whereas evolutionary morphological diversity and specific ecological adaptations that occur in nature.</p> <p>The knowledge acquired by the student contributes to the specific competences of the educational programme. Distinguishing exomorphic and endomorphic aspects of plants, it allows students to meet their application in the forest area. As for the general skills, students develop skills and abilities to perform teamwork, written assignments, oral presentations, laboratory, etc.</p>



*Learning Unit Modules*  
*Focused in Integral Professional Competences*

10. Professional competences to develop in students.			
Knowledge	Skills (h)	Attitudes	Values
Trees and bushes constitute structures and applying an efficient use of their parts for human benefit.	Knowing and handling the constitutive structures of trees and bushes, and promoting an efficient use of their parts for human benefit.	Interest in preserving nature.  Collaboration and participation in team Works.  Interest in self learning and continuous learning.	Respect  Honesty  Responsibility  Commitment  Ethics  Unity

11. Course topics
Unit I: Introduction to plant biology Unit II: Exomorphology: morphological levels Unit III: Endomorphology: plant cell to systems Unit IV: Reproduction of plants: sexual and asexual Unit V: Plant diversity: phanerogams and cryptogams

12. Evaluation criteria
Formative evaluation Summative evaluation Self assessment Co-evaluation Hetero Evaluation

13. Information sources
<b>Basic</b>  <b>Esau Katherin. 1985. Anatomía vegetal. Omega, España.</b>  Evert, R., S. E. Eichhorn, F. Fortes , 2008. Anatomía Vegetal: Meristemos, Células Y Tejidos de las Plantas: Su Estructura, Función Y Desarrollo. 3a Ed. Omega, España 614 p.  Fuentes Yagüe, J. L. 2001. Iniciación a la botánica. Mundi-Prensa, España ,230 p.



*Learning Unit Modules*  
*Focused in Integral Professional Competences*

Montuenga B., E. Ruiz, C. González, 2009. Técnicas en Histología y Biología Celular. Elsevier Masson. España. 392 p.

**Northington David y Schneider Edward. 1996. The botanical world. Segunda edición. WCB. U.S.A.**

Raven P.H., Evert R.F. & S.E Eichhorn. 2005. Biology Of Plants 7<sup>th</sup> Edition. Worth Publishers New York, New York

**Starr C. 1991. Biology: concepts and applications. Wadsworth publishing Company. U. S. A.**

Starr, C., et. al. 2009. Biología: La Unidad y La Diversidad de la Vida .12a ed. Cengage Learning, México 1003p.

**Complementary**

- Instituto de Ecología. A. C. Flora del bajo y de regiones adyacentes.  
URL:<http://www1.inecol.edu.mx/publicaciones/FLOBA.htm>
- International Association for plant taxonomy. [en línea] URL:  
<http://www.iapt-taxon.org/nomen/main.php?page=title>
- Conabio. Sistema integrado de información taxonómica (México). [En línea] URL:  
<http://siit.conabio.gob.mx/>