



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

**I. GENERAL LEARNING UNIT**

<b>1. Identification</b>	<b>2. Code</b>	<b>3. Semester</b>	<b>4. Training area</b>
Forest Measuring	DMF20	Fourth	Discipline

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

<b>6. Class shedule (hours per week)</b>				
<b>Theory</b>	<b>Practice</b>	<b>Independent study</b>	<b>Total hours</b>	<b>Credits</b>
3	1	1	5	5

<b>7. Person responsible for the subject.</b>
Francisco Javier Compeán Guzmán

**I. DATA SPECIFIC LEARNING UNIT**

<b>8. Objectives</b>
<p>Measure in all its dimensions the forests, forest areas and all items associated with an ecosystem from a static point of view. Make the resource inventory and forest products.</p> <p>Measure in all its dimensions the forest areas, forestry and all items associated with an ecosystem from a point of dynamic. Calculate the indicators growth, development and increase of the species in a forest ecosystem in each one of their phenological stages.</p> <p>To determine site indices, biometric models, and other curves that show the amount and quality of the biotic and abiotic factors of forest ecosystems.</p>

<b>9. Presentation.</b>
<p>Biogeography as an interdisciplinary science seeks to integrate the evolutionary relationships between organisms and their ranges from eco-geographical and paleontological information, and requires basic knowledge and contributions from other sciences such as comparative biology, taxonomy, evolutionary biology and ecology. This course is located in the area of basic training, and other subjects required to be carried in previous and current semesters.</p>



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<b>10. Professional competences to develop in students.</b>			
Knowledge	Skills	Attitudes	Values
<p>Trees and bushes constitute structures and applying an efficient use of their parts for human benefit.</p> <p>Present and reliable methodologies for quantifying forest resources.</p> <p>Ecological links among beneficial and harmful organisms that make up the ecosystems.</p>	<p>Present and reliable methodologies for quantifying forest resources.</p> <p>Designing and adapting forest use techniques that carry a sustainable management of forest resources.</p>	<p>Interest in preserving nature.</p> <p>Availability for collaborating in the profession tasks.</p> <p>Being objective in the handling of information.</p>	<p>Respect</p> <p>Responsibility</p> <p>Commitment</p>

<b>11. Course topics</b>
<p>Unit I: Introduction and background of measurement and</p> <p>Unit II: Measurement of trees, dendrometer variables</p> <p>Unit III: Measurement of trees, logs, and forest products</p> <p>Unit IV: Biological Basis of the growth and increasing in the trees and forest masses</p> <p>Unit V: Growth and increasing the tree</p> <p>Unit VI: Increase and performance of the masses and forest site quality</p>

<b>12. Evaluation criteria</b>
<p>Formative evaluation</p> <p>Summative evaluation</p> <p>Self assessment</p> <p>Co-evaluation</p> <p>Hetero-Evaluation</p>

<b>13. Information sources</b>
<b>Basic</b>
<p>Romahn V. , C. F. , H. Ramirez M. and J. L. Trevino G. 1994. Placement. Autonomous University of Chapingo. Chapingo, Mex. 354 P.</p>



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Carrillo E. G. 1998. Epidometria. Autonomous University of Chapingo. Chapingo, Mex. 187 P. Mass  
P. , J. 1970. Instructive to perform analysis trunks. Bull. Tec INIF. Mexico, D. F. 10 p.

**Complementary**

Romahn V. , C. F. and J. C. Ayala S. 1994. Placement; Practices and laboratories. Academic support  
Series No. 36. 2A. Reprint. Division of Forest Sciences. UACH. Chapingo, Mex. 48 P.  
Klepac, D. 1976. Growth and increasing masses of trees and forest. Department of Forests. ENA.  
Chapingo, Mex. 355 P.  
Zepeda B., E. M. 1983. Analysis of ten procedures for estimating volumetric increases of conifers.  
Professional thesis. Department of Forests. UACH. Chapingo, Mex. 632 P.