

Module Descriptions

Module designation	Plant Structure and Development <i>Sistematika Tumbuhan</i>
Course Code	8420504226
Semester/Term	3rd semester
Person responsible for the module	Dr. Rinie Pratiwi Puspitawati, M.Si. Ahmad Bashri, S.Pd., M.Si Putut Rakhmad Purnama, M.Si., Ph.D Dwi Setyo Pratiwi, S.Pd., M.Ed
Language	Bahasa Indonesia
Relation to curriculum	Compulsory course
Teaching methods	Lecture, lab work
Workload	Contact hours: 3 x50 minutes lectures, 3 x50 minutes laboratory works Private study: 3 x60 minutes structured activity, 3 x60 minutes individual activity Total 180 hours per semester ~ 6.36 ECTS**
Credit Point	4 CUs
Required and recommended prerequisites for joining the module	General Biology
Module Objectives/intended learning outcomes	<ol style="list-style-type: none"> 1. Mastering the concept of cells, tissues and organs in plants in terms of their structure and development related to various external factors. (<i>Knowledge</i>) 2. Able to work in the laboratory independently in accordance with the problems of plant structure and development by applying the principles of work safety. (<i>Special Competence</i>) 3. Able to design problem solving, retrieve data, and process research data to solve problems related to the plant structure and development. . (<i>Special Competence</i>) 4. Able to communicate the results of studies/researches on the plant structure and development using appropriate communication media. (<i>General Competence</i>) 5. Able to make the right decisions based on data analysis and choose various alternative solutions independently

	<p>and in groups in the field of plant structure and development.</p> <p>6. Able to work independent, honest, and responsible attitude in applying various concepts and principles of plant development in daily life. (<i>Attitude</i>)</p>										
Content	<p>Plant structure and development studies about: gymnospermae and angiospermae are viewed from the external structure (morphology), internal structure (anatomy) and their development related to various external factors. The study covers the concept of structure and function of cells, tissues, and organs that make up the Organum Nutritivum and Organum Reproductivum. This course is presented through theory and practicum by emphasizing the problem solving process related to the concepts studied. At the end of the lecture students master knowledge related to the concept of plant developmental structures as well as have relevant problem solving skills. Learning is packaged with a student-centered learning approach using various methods according to the characteristics of the material such as presentations, discussions, and practicums as well as other learning strategies such as Project Based Learning (PjBL).</p>										
Examination forms	Project-based										
Requirements for successfully passing the module	<p>Study Requirement</p> <p>Attendance: students must attend at least 75% of the lectures to be eligible for the final project presentation.</p> <p>Study examination</p> <p>The final grade (<i>NA</i>) is calculated based on the following ratio:</p> <table border="1"> <thead> <tr> <th>Assessment Components</th> <th>Percentage of contribution</th> </tr> </thead> <tbody> <tr> <td>Participation</td> <td>20%</td> </tr> <tr> <td>Assignment</td> <td>30%</td> </tr> <tr> <td>Mid-semester test</td> <td>20%</td> </tr> <tr> <td>Final project</td> <td>30%</td> </tr> </tbody> </table>	Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final project	30%
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	<p>Grade conversion of 0-100 scale into 0-4 scale is set as below:</p> <table border="1" data-bbox="644 224 1426 591"> <thead> <tr> <th>Letter</th> <th>Number</th> <th>Grade Interval</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4,00</td> <td>$85 \leq A \leq 100$</td> </tr> <tr> <td>A-</td> <td>3,75</td> <td>$80 \leq A- < 85$</td> </tr> <tr> <td>B+</td> <td>3,50</td> <td>$75 \leq B+ < 80$</td> </tr> <tr> <td>B</td> <td>3,00</td> <td>$70 \leq B < 75$</td> </tr> <tr> <td>B-</td> <td>2,75</td> <td>$65 \leq B- < 70$</td> </tr> <tr> <td>C+</td> <td>2,50</td> <td>$60 \leq C+ < 65$</td> </tr> <tr> <td>C</td> <td>2,00</td> <td>$55 \leq C < 60$</td> </tr> <tr> <td>D</td> <td>1,00</td> <td>$40 \leq D < 55$</td> </tr> <tr> <td>E</td> <td>0,00</td> <td>$0 \leq E < 40$</td> </tr> </tbody> </table>	Letter	Number	Grade Interval	A	4,00	$85 \leq A \leq 100$	A-	3,75	$80 \leq A- < 85$	B+	3,50	$75 \leq B+ < 80$	B	3,00	$70 \leq B < 75$	B-	2,75	$65 \leq B- < 70$	C+	2,50	$60 \leq C+ < 65$	C	2,00	$55 \leq C < 60$	D	1,00	$40 \leq D < 55$	E	0,00	$0 \leq E < 40$
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Reading List	<p>Evert RF. 2006. Esau's Plant Anatomy. Meristems, Cells, and Tissues of The Plant Body: Their Structure, Function, and Development. Madison: John Wiley & Sons, Inc.</p> <p>Pratiwi, RP. 2015. Anatomi Tumbuhan. Surabaya: Universitas Negeri Surabaya Press.</p> <p>Puspitawati, RP. & Bashri, A. 2018. Struktur Perkembangan Tumbuhan. Surabaya: Unesa University Press.</p>																														