

Undergraduate Programme in Biology

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MODULE HANDBOOK

Module Name	Plant Comparative Anatomy
Module level, if applicable	Bachelor
Code, if applicable	BIO425025
Subtitle, if applicable	-
Courses, if applicable	Plant Comparative Anatomy
Semester(s) in which the module is taught	5 th (fifth)
Person responsible for the module	Dias Idha Pramesti, S.Si., M.Si
Lecturer(s)	Ika Nugraheni Ari Martiwi, S.Si., M.Si., Dr. Shilfiana Rahayu, M.Sc Dias Idha Pramesti, S.Si., M.Si
Language	Indonesia
Relation to curriculum	Elective course in the third year (5 th semester) Bachelor Degree
Type of teaching, contact hours	100 minutes of lectures, 170 minutes labwork and 120 minutes structured activities per week
Workload	Total workload is 136 hours per semester, which consists of 100 minutes lectures per week for 16 weeks, 120 minutes structured activities per week, 120 minutes individual study per week, 170 minutes laboratory work in total is 16 weeks per semester, including mid-exam and final exam
Credit points	3
Requirements according to the examination regulations	Students must meet the minimum attendance requirement
Recommended prerequisites	No prerequisites are stated on
Module objectives/intended learning outcomes	After completing this course, the students: CO 1 Explore the principles of plant structure and the developmental processes in higher plants CO 2 Examine the anatomical features of plant vegetative organs, including roots, stems, and leaves CO 3 Investigate and contrast the anatomical characteristics of plant vegetative organs across different plant classes CO 4 Provide detailed descriptions of roots, stems, and leaves, focusing on their anatomical traits
Content	1. Eukaryotic cell protoplasm 2. Structure and development of plant cell walls 3. Meristem tissue and its role in development and growth 4. Structure and anatomical development of tissues in plants 5. Characteristics of the structure, anatomy, and development of roots, stems, and leaves in several groups of plants

Study and examination requirements and forms of examination	The final mark will be weighted as follows:																																														
	<table><tr><th>NO</th><th colspan="3">Assessment methods (components, activities)</th><th colspan="2">Weight (percentage)</th></tr><tr><td>1</td><td colspan="3">Final Examination</td><td colspan="2">35%</td></tr><tr><td>2</td><td colspan="3">Mid-Term Examination</td><td colspan="2">35%</td></tr><tr><td>3</td><td colspan="3">Labwork</td><td colspan="2">20%</td></tr><tr><td>4</td><td colspan="3">Class Activities: Quiz, Homework, etc.</td><td colspan="2">10%</td></tr></table>						NO	Assessment methods (components, activities)			Weight (percentage)		1	Final Examination			35%		2	Mid-Term Examination			35%		3	Labwork			20%		4	Class Activities: Quiz, Homework, etc.			10%												
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The final assessment is expressed in the form of a letter value converted from a number value with the following categories:																																															
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Media employed	White-board, Lcd Projector, e-learning (https://daring.uin-suka.ac.id/)																																														
Reading list	1. Barclay, Gregor Fraser (January 2015) Anatomy and Morphology of Seed Plants. In: eLS. John Wiley & Sons, Ltd: Chichester. DOI: 10.1002/9780470015902.a0002068.pub2 2. Beck, A, Charles. 2010. An Introduction Plant structure and Development 3. Crang, Richard., Sheila Lyons-Sobaski and Robert Wise. 2018. Plant Anatomy. A Concept-Based Approach to the Structure of Seed Plants. Springer Nature Switzerland AG 4. Evert, R.F. 2006. Esau's Plant Anatomy: Meristems, Cells, and Tissues of the Plant Body: Their Structure, Function, and Development, Third Edition. John Wiley & Sons, New York. 5. Hidayat, E. B. 1995. Anatomi Tumbuhan Biji. Penerbit ITB. 6. Kusuma et al. 2019. Morpho-anatomical structure and DNA barcode of <i>Sonchus arvensis</i> L. Biodiversitas:. 20 (8). https://doi.org/10.13057/biodiv/d200841 7. Lersten, N.R. 2004. Flowering Plant Embryology. Blackwell Publishing. 8. Maheswari, P. 1950. An introduction to The Embryology of Angiosperms. First Edition. McGraw-Hill Book Company, Inc. New York-Toronto-London 9. Nugroho, L.H. 2016. Jaringan Sekretori Tumbuhan. Gadjah Mada University Press. Yogyakarta																																														

PLO and CO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11
CO 1			√	√	√						
CO 2			√	√	√						
CO 3				√	√						



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E-mail: fst@uin-suka.ac.id, website: <http://saintek.uin-suka.ac.id/>

CO 4				√	√						
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