

Bachelor of Biology EducationEmail: biologi.fmipa@um.ac.idWebsite: <http://biologi.fmipa.um.ac.id/>**MODULE HANDBOOK**

Module designation	Protists
Module level, if applicable	Undergraduate
Code, if applicable	PBIOUM6112
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Even semester
Person responsible for the module	Sofia Ery Rahayu, S.Pd., M.Si
Lecturer	Sofia Ery Rahayu, S.Pd., M.Si Dr. Murni Saptasari, M.Si Prof. Dr. Susriyati Mahanal, M.Pd.
Language	Bahasa Indonesia
Relation to curriculum	Undergraduate degree program, compulsory, 2nd semester
Type of teaching, contact hours	Undergraduate degree program: cooperative learning, presentation, laboratory work, 2 x 50 = 100 minutes and 1 x 170 minutes
Workload	1. Lectures: 2 x 50 = 100 minutes (1.67 hours) per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Laboratory work: 1 x 170 minutes (2.83 hours) per week. 4. Private study: 2 x 60 = 120 minutes (2 hours) per week.
Credit points	3 credit points (~5 ECTS-eq)
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to be eligible for the final examination.
Recommended prerequisites	-
Module objectives/intended learning outcomes	Students are able to: (LO4) Master theoretical concepts and basic biological procedures and manage laboratories in an integrated manner using logical, critical, and systematic thinking.
Course Learning Outcome	1. Mastering the concepts of morphological structure, physiology, reproduction, systematics, and the role of organisms in the group of animal-like protists

	2. Mastering the concepts of morphology, physiology, reproduction, systematics, and the role of plant-like protists group organisms 3. Mastering the concepts of morphological structure, physiology, reproduction, systematics, and the role of fungi-like protists group organisms	
Content	This course covers the following main topics: • The structure of the morphology, physiology, reproduction, systematics, and the role of animal-like Protist group organisms • Morphological structure, physiology, reproduction, systematics, and the role of plant-like Protist group organisms • The structure of the morphology, physiology, reproduction, systematics, and the role of fungi-like Protist group organisms	
Learning Activity	Week 1:	- Lecture contract - Characteristics of protists - Position of protists among existing organisms.
	Week 2	- Algae Definition and Limitations - Classification and General Characteristics of Plant-Like Algae Protists
	Week 3	Morphological structure, physiology, reproduction, systematics, and roles of plant-like protists: Chlorophyta
	Week 4	Morphological structure, physiology, reproduction, systematics, and roles of plant-like protists: Euglenophyta
	Week 5	Morphological structure, physiology, reproduction, systematics, and roles of plant-like protists: Pyrrophyta, Chrysophyta
	Week 6	Morphological structure, physiology, reproduction, systematics, and roles of plant-like protists: Phaeophyta, Rhodophyta
	Week 7	TEST 1: PLANT-LIKE PROTISTS
	Week 8	Morphological structure, physiology, reproduction, systematics, and roles of fungi-like protists: Water Mushroom (Oomycota)
	Week 9	Morphological structure, physiology, reproduction, systematics, and roles of fungi-like protists: Slime Mushroom(Myxomycota)
	Week 10	TEST 2: FUNGI-LIKE PROTISTS
	Week 11	Morphological structure, physiology, reproduction, systematics, and roles of Phylum

		Sarcomastigomorpha and Phylum Labyrinthomorpha
	Week 12	Morphological structure, physiology, reproduction, systematics, and roles of Phylum Apicomplexa and Phylum Microspora
	Week 13	Morphological structure, physiology, reproduction, systematics, and roles of Phylum Acetozoa and Myxozoa
	Week 14	Morphological structure, physiology, reproduction, systematics, and role of Phylum Ciliophora
	Week 15	Assignment Presentation
	Week 16	TEST 3: ANIMAL-LIKE PROTISTS
Study and examination requirements and forms of examination	Assignment, quiz, midterm examination, final examination, performance	
Media employed	LCD, blackboard, and Sipejar.	
Reading list	1. Bold, H.C. and Wayne, M.J. 1985. <i>Introduction to the Algae</i> (Second edition). Englewood Cliffs: Prentice Hall, Inc. 2. Graham, L., and Wilcox, L. 2000. <i>Algae</i>. New York: Prentice-Hall Inc. 3. Gupta. <i>Algae</i> 4. Hickman, C.P., Robert, L., dan Larson, A. 2001. <i>Integrated Principles of Zoology</i>. New York: The McGraw-Hill. 5. Miller, Harley. 2001. <i>Zoology</i>. Fifth edition: New York: The McGraw-Hill. 6. Saptasari, M., Prasetyo, T.I., dan Mahanal, S. 2007. <i>Botani Tumbuhan Bertalus ALGA</i>. Malang: Universitas Negeri Malang. 7. Smith. <i>Cryptogamic Botany (1,2), Freshwater Algae in The United State</i> 8. Vahista. <i>Botany for degree Students</i>. 9. Articles about Protists from national and international journals.	
Date of last amendment made	January, 2022	