

## UNIVERSITAS NEGERI PADANG FACULTY OF MATHEMATICS AND NATURAL SCIENCES MATHEMATICS DEPARTMENT, MATHEMATICS STUDY PROGRAM Main Campus Universitas Negeri Padang. Jalan Prof. Dr. Hamka Air Tawar Padang, Sumatera Barat Telepon: +62 751 7053902, Fax: +62 751 7055628 Email: humas@unp.ac.id

## **Bachelor of Science in Mathematics**

## **MODULE HANDBOOK**

Module name:	General Biology
Module level, if applicable:	Bachelor
Code:	FMA1.60.1301
Subheading, if applicable:	-
Classes, if applicable:	General Biology
Semester:	2 <sup>nd</sup> (Second Semester)
Module coordinator:	Drs. Mades Fifendy, M. Biomed
Lecturer(s):	Drs. Mades Fifendy, M. Biomed and team
Language:	Indonesian Language and English
Classification within the curriculum:	Compulsory Courses in the first year (2 <sup>nd</sup> semester) Bachelor Degree
Teaching format / class hours	<ul> <li>a. Lectures : Problem based learning with methods such as expository and group discussion (3 x 50 minutes = 150 minutes).</li> <li>b. Structured assignment (3 x 60 minutes = 180 minutes).</li> <li>c. Individual study. (3 x 60 minutes = 180 minutes).</li> <li>d. Practical lesson in the Laboratorium (170 minutes).</li> </ul>
Workload:	Total workload is 181,33 hours per semester, which consists of 150 minutes lectures per week for 16 weeks, 180 minutes structured activities per week, 180 minutes individual study per week, and 170 minutes laboratory work per week, in total is 16 weeks per semester (including mid and final exam)
Credit points:	4  SKS = 6.04  ECTS
Prerequisites course(s):	No prerequisite is needed

Course Outcomes:	After completing this course, the students have ability to:							
	CO 1. Care about the environment and other living creatures							
	CO 2. Showing the scientific attitude in conducting							
	experiment in the laboratory and in writing the reports							
	CO3 Describes knowledge about living things scientific							
	methods cells metabolism biodiversity the organizational							
	structure of plant and animal bodies organ systems in							
	living things interactions of organisms with the							
	environment inheritance and evolution and the principles							
	and applications of biotechnology							
Content:	Living things and the scientific method							
Content.	<ul> <li>Cell as the basis of life</li> </ul>							
	<ul> <li>metabolism</li> </ul>							
	Biodiversity							
	• Organizational structure of plant and animal bodies							
	• Organ system							
	Organism and environment interactions							
	Inheritance and evolution							
	Biotechnology applications.							
Study/exam achievements:	The final mark will be weighted as follows:							
	The practicum (25%), final examination (25%), mid term exam (25%), assignment (15%), and affective score (10%).							
	The final and mid-term exams are essay tests with a closed book (120 minutes).							
	Group discussion: The class participants will be separated into several small groups. Each group will be assigned to a certain topic relating to the course material. The students should discuss the issue, write a paper, and give a presentation in class.							
	Practical work is done in the biology laboratory under the guidance of a lecturer or lecturer assistant. Practical experience is required to see some biological processes.							
	The assessment is made based on the observation sheet and the scoring rubrics provided.							
Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.							
Literature:	1. Raven, P dan Johnson, G. 2001. Biology Sicth Edition.							
	Washington:Mcgraw-Hill College							
	2. Campbell, N.A., Reece J.B., Urry L.A., Cain M.L.,							
	Wasserman SA., Minorsky PV dan Jackson R.B, 1999.							
	Biologi Edisi Kelima. Alih Bahasa: Damaring Tyas							
	Wulandari, Jakarta: Erlangga.							
	3. Kimbal, J.W.1990. Biologi. Alih Bahasa: Soetarmi.							

Erlangga. Jakarta.
4. Simon E, Jane R, Jean D. 2013. Essential Biology with
Physiology Fourth Edition. United State of
America: Pearson Education, Inc.
5. Suryo. 1990. Genetika Manusia. Yogyakarta. Gadjah
Mada University Press

## PLO and CO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1	$\checkmark$									
CO2		$\checkmark$								
CO3										