



# THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

## BIOSYSTEMATICS

<b>Course code</b>	BIMB 202117
<b>Course level</b>	Magister
<b>Semester/ term</b>	Odd
<b>Course coordinator(s)</b>	Prof. Dr. Purnomo, MS.
<b>Lecture(s)</b>	Prof. Dr. Purnomo, M.S. Dr. Endah Retnaningrum, M.Eng. Prof. Dr. Rosichon Ubaidillah, M.Phil. Dr. R.C. Hidayat S.H., M.S
<b>Language</b>	Indonesia
<b>Classification within the Curriculum</b>	Compulsory
<b>Teaching format/ class hours per week during the semester</b>	This course is organised into 4 parallel classes and planned to have 14 teaching weeks and 2 weeks of examination.
<b>Workload</b>	Estimated working hour: 2 credits of theory and 0 credit of laboratory work.
<b>Credits</b>	2-0 credits
<b>Requirements</b>	-
<b>Program Learning Outcome</b>	<ol style="list-style-type: none"><li>1. Students know the field of biosystematics studies and its relationship to the diversity of microbes, tropical plants and animals.</li><li>2. Students know the diversity of ecosystems, species and genes for groups of tropical microbes, plants and animals</li><li>3. Students can analyze the alpha taxonomy principles of microbes, tropical plants and animals</li><li>4. Students can analyze the principles of biosystematics of tropical microbes, plants and animals</li><li>5. Students can analyze the principles of biosystematics of tropical microbes, plants and animals</li></ol>
<b>Course Learning Outcome</b>	A.2. The graduates are able to work together with the community at various levels, and have social sensitivity and concern for society and the environment.



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	<p>K-3. The graduates can demonstrate excellent knowledge in Biosystematics theories, cover all aspects of norms and ethics as well as demonstrate a responsible attitude in their field of expertise and approach methods to solve tropical biodiversity problems through Biosystematics studies.</p> <p>GS-1. The graduates are able to develop scientific concepts of Biosystematics, research procedures and scientific publications.</p> <p>GS-4. The graduates are able to manage Biosystematics research data to ensure validity, uphold academic integrity and prevent themselves from practicing flagiarism.</p> <p>SK-1. The graduates are able to conduct research in the field of Biosystematics independently or in groups, and are able to solve various problems related to Biosystematics.</p> <p>SK-2. The graduates are able to solve problems related to Biosystematics through an inter- and/or multidisciplinary approach that is beneficial to society and the scientific community.</p>
<b>Course Description</b>	<p>Biosystematics is a course that explains the definition and philosophy of biosystematics for measuring tropical biodiversity. Discussion of microbial diversity and its causal factors. Classification of Bacteria, Archaeobacteria and Eukaryotes and the development of microbial biosystematics research. Discussion on plant diversity and its causal factors, classification of mosses, ferns and seed plants, as well as the development of plant biosystematics research. Discussion on the diversity of animals and their causes, invertebrate animals, vertebrate animals, and the development of animal biosystematics research.</p>
<b>Assesments</b>	<ol style="list-style-type: none"><li>1. Project (10)</li><li>2. Assigment (20)</li><li>3. Midterm exam (35)</li><li>4. Final exam (35)</li></ol>
<b>Study Media</b>	Online
<b>Literature</b>	Stace CA (2000), Plant Taxonomy and Biosystematics, Singh (2000), Plant Systematics, Pulailah et al, 2013. Biosystematics theory and practical.