

## Biogeography

Module code	BIO 40303
Module level	2 <sup>nd</sup> year of Undergraduate Program in Biology
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	4/even
Module coordinator(s)	Dr. Retno Peni Sancayaningsih
Lecture(s)	<ol> <li>Dr. Retno Peni Sancayaningsih</li> <li>Prof. Dr. Suwarno Hadisusanto</li> <li>Siti Nurleily Marliana, S.Si., M.Sc., Ph.D.</li> <li>Drs. Heri Sudjatmiko, M.Si.</li> </ol>
Language	Indonesia
Classification within the Curriculum	Elective course
Teaching format/class hours per week during the semester	This course is organised into 3 parallel classes and planned to have 14 teaching weeks and 2 weeks of examination, and one meeting per week with time allocation of 100 minutes. Learning method delivery such as Student Centered Learning combained with Collaborative Learning, Cooperative Learning, Case Based Learning and Problem Learning.
Workload	Estimated working hour: 7 hours/week.
Credit points	2-0 credits
Requirements	Ecology (BIO 40302)
Learning goals/ competencies	<ol> <li>Knowledge and understanding         <ul> <li>a. Fundamental characteristics and processes in the biophysical system.</li> <li>b. Interactions between biophysical landscape and human within the environment.</li> <li>c. Geographical and environmental changes in various temporal and spatial scales, and their effects on the distribution of organisms.</li> </ul> </li> <li>2. Ability/intelectual skill         <ul> <li>a. Working in a team.</li> <li>b. Preparing a scientific report.</li> </ul> </li> </ol>



	<ul> <li>c. Researching biogeographical information.</li> <li>d. Analyzing and predicting changes in spatial and temporal distributions of organisms.</li> <li>e. Identifying, analyzing, and interpreting spatial relationship and patterns in the natural system.</li> <li>3. Attitude <ul> <li>a. Sensitivity towards the impact of environmental-related crises.</li> <li>b. Inquisitiveness in biogeographical research.</li> <li>c. Respect for the ideas and opinions of others.</li> </ul> </li> </ul>
Content	Biogeography is the study of spatial patterns and causes of biodiversity on the Earth's surface, both in the present and past. It concerns with processes of evolution, extinction, and dispersal. Experts biogeography synthesize information from a variety of disciplines, including ecology, evolution, paleontology, and climatology. This course will cover historical biogeography and ecological biogeography, in which the historical background of the field of biogeography and ecology foundation necessary to understand the distribution and abundance of species and changes over time will be explained. This lecture will also explore the relevance of biogeography in the modern era, at a time when human activities and climate change is increasing the impact on our Earth.
Study/exam achievements	<ol> <li>Midterm: 30%</li> <li>Final examination: 30%</li> <li>Assignment: 10%</li> <li>Presentation: 20%</li> </ol>
Forms of media	White board, LCD
Literature	<ol> <li>Horton HR, Moran LA, Rawn JD dan Scrimgeor KG (1996) Principles of Biochemistry. Second Edition. Prentice-Hall International, INC.</li> <li>Lehninger AL, Nelson DL, Cox MM (1993) Principles of Biochemistry. Second Edition Worth Publisher.</li> <li>Nelson, DL and Cox MM (2000) Lehninger: Principles of Biochemistry. Third Edition. Worth Publisher. (e-book).</li> <li>Stryer L (1995) Biochemistry. Fourth Edition. W.H. Freeman and Company.</li> <li>Boyer, R (1999) Concept in Biochemistry. Brooks Cole Publishing Company.</li> </ol>
	Other References  1. Understand Biochemistry Lehninger Principles biochemistry 3/6 Version. (1999) The Mona Group, LLC

2. Textbook Principles of Biochemistry 1993 and 2000.