

## Module Descriptions

A **module** is a self-contained **learning unit** within a higher education program that includes thematically related courses and is assigned a **fixed number of credits**. It follows specific **learning objectives**, includes an **assessment component**, and contributes to achieving the qualifications of a degree program. In some countries, “modules” are also named “courses”.

Please provide a module description for each module. In addition to the compulsory and elective modules, this also includes credited internships and the final thesis.

Please summarize all module descriptions in one document (Module Handbook) and create a table of contents so that the modules can be found easily.

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| Module designation                                            | <i>Basics of Ecology</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Semester(s) in which the module is taught                     | <i>1</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Person responsible for the module                             | <i>Prof. Dr. Ir. Ambo Ala</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Language                                                      | <i>Bahasa Indonesia</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Relation to curriculum                                        | <i>Compulsory <del>/elective</del> /specialisation</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Teaching methods                                              | <i>Face-to-face lectures and independent learning</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Workload (incl. contact hours, self-study hours)              | <ol style="list-style-type: none"> <li>1. Lectures: <math>2 \times 50 \times 16 = 1,600</math> minutes (26.67 hrs)</li> <li>2. Structured assignments: (total <math>2 \times 60 \times 16</math>) = 1,920 minutes (32 hrs)               <ul style="list-style-type: none"> <li>- Individual assignments: <math>2 \times 120 \times 3 = 720</math> minutes (12 hrs)</li> <li>- Group assignments: <math>2 \times 120 \times 3 = 720</math> minutes (12 hrs)</li> <li>- Quiz: <math>2 \times 15 \times 8 = 240</math> minutes (4 hrs)</li> <li>- Discussion: <math>2 \times 30 \times 4 = 240</math> minutes (4 hrs)</li> </ul> </li> <li>3. Independent study: (total <math>2 \times 60 \times 16</math>) = 1,920 minutes (32 hrs)               <ul style="list-style-type: none"> <li>- Accessing SIKOLA, participating in online discussion forums, reading materials, etc.</li> </ul> </li> </ol> |
| Credit points                                                 | <i>2 credits equal to 3.24 ECTS</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Required and recommended prerequisites for joining the module | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module objectives/intended learning outcomes | <p><i>In terms of knowledge:</i></p> <ul style="list-style-type: none"> <li>- <i>Students are able to explain the definition of ecology and the organization of biological systems.</i></li> <li>- <i>Students are able to explain ecosystems and energy flow within ecosystems.</i></li> <li>- <i>Students are able to explain environmental factors in ecosystems.</i></li> <li>- <i>Students are able to explain organism populations and life tables of organisms.</i></li> <li>- <i>Students are able to explain succession and community structure.</i></li> </ul>                                                                                                 |
| Content                                      | <ol style="list-style-type: none"> <li>1. <i>Ecology and biological organization</i></li> <li>2. <i>Ecosystems</i></li> <li>3. <i>Energy in ecosystems</i></li> <li>4. <i>Environmental factors</i></li> <li>5. <i>Organism populations</i></li> <li>6. <i>Life tables and organism survival</i></li> <li>7. <i>Succession</i></li> <li>8. <i>Community structure</i></li> </ol>                                                                                                                                                                                                                                                                                         |
| Examination forms                            | <i>Quiz, individual assignment, group assignment, discussion</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Study and examination requirements           | <i>To successfully pass the module, students must attend at least 80% of the classes, complete all assignments and exams, and obtain a final grade of at least 45% (minimum passing grade: D).</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reading list                                 | <ol style="list-style-type: none"> <li>1. <i>Odum, E. P. (1971). Fundamentals of Ecology. Saunders College Publishing, London.</i></li> <li>2. <i>Whittaker, R. H. (1970). Communities and Ecosystems. Macmillan Publishing Co., Inc., New York.</i></li> <li>3. <i>Irwan, Z. D. (2010). Prinsip-Prinsip Ekologi (Ekosistem, Lingkungan dan Pelestariannya). PT Bumi Aksara, Jakarta.</i></li> <li>4. <i>Riyanto, B., Nurkin, J. L. Palenewan, H. Jodjo, Suwondo, A. Delmi, J. Renwarin, P. Kleden, M. N. Rahman, &amp; G. M. Hatta. (1985). Ekologi Dasar I. Badan Kerja Sama PTN Indonesia Bagian Timur, Lephass Universitas Hasanuddin, Ujung Pandang.</i></li> </ol> |