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.

Module designation	Enzymology
Semester(s) in which the module is taught	Even
Person responsible for the module	Dr. Evy Yulianti
Language	Indonesian language
Relation to curriculum	Elective subject
Teaching methods	lecture, project, case study, seminar, examination
Workload (incl. contact hours, self-study hours)	Total workload is 91 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points	2 SKS (3,2 ECTS)
Required and recommended prerequisites for joining the module	Biochemistry
Module objectives/intended learning outcomes	PLO-6, PLO-7, PLO-8
Content	This course explores fundamental and applied aspects of enzymology, focusing on the structure and function of enzymes. Topics include catalytic mechanisms, enzymatic kinetics, enzyme classification, coenzymes, inhibition and regulation of enzyme activity, as well as practical applications of enzymes in diverse scientific and industrial contexts.
Examination forms	Test, rubrics, and presentation

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<tr>
<td>Study and examination requirements</td>
<td>Requirements for successfully passing the module
The final mark will be weight as follow:

<table>
<tr><th>NO</th><th>Assessment Techniques</th><th>Percentage Weight Assessment (%)</th><th>Information</th></tr>
<tr><td>1</td><td>Cognitive</td><td>50</td><td>Maximum assessment weight accumulation 50%</td></tr>
<tr><td rowspan="5"></td><td>Presence</td><td>0</td><td></td></tr>
<tr><td>Task</td><td>0</td><td></td></tr>
<tr><td>Quiz</td><td>0</td><td></td></tr>
<tr><td>Mid-semester exams</td><td>25</td><td></td></tr>
<tr><td>Final Semester Exam</td><td>25</td><td></td></tr>
<tr><td>2</td><td>Participatory</td><td>50</td><td>Maximum assessment weight accumulation 50%</td></tr>
<tr><td rowspan="3"></td><td>Case study</td><td>25</td><td></td></tr>
<tr><td>Team Base Project</td><td>25</td><td></td></tr>
<tr><td>Total</td><td>100</td><td></td></tr>
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<td>Reading list</td>
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A. Lehninger. 2021. Principles of Biochemistry, 8 ed, W.H. Freeman & Co., publ.
B. Murray, R.K., Granner, D.K., and Rodwell, V.W., 2018, Harper’s Illustrated Biochemistry, 31st edition, Mc Graw Hill Companies, USA
C. Devlin, T.M., 2010, Textbook of Biochemistry With Clinical Correlations, 7th edition, Wiley-Liss, Canada
D. Yulianti, E., & Rakhmawati, A. 2017. Pengaruh suhu dan pH terhadap aktivitas enzim fosfatase bakteri termofilik sungai gendol pasca erupsi Merapi. In Jurnal Prodi Biologi (Vol. 6).
E. Umniyatie, S., Rakhmawati, A., & Yulianti, E. (2015). Optimalisasi enzim selulase kapang hasil isolasi dari lahan pertanian daerah Wukirsari pasca erupsi.

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