

Module Description

MPKP 436 Selected Topics in Biochemistry

Module Name	Selected Topics in Biochemistry
Module level, if applicable	Undergraduate Programme
Code, if applicable	MPKP 436
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	7 th Semester
Module coordinator(s):	Prof. Risa Nofiani, S.Si., M.Si., Ph.D
Lecturer	Prof. Risa Nofiani, S.Si., M.Si., Ph.D Puji Ardiningsih, S.Si., M.Si
Language	Bahasa Indonesia
Relation to curriculum	Elective Courses for the Undergraduate Programme in Chemistry
Type of teaching, contact hours 14)	Lecture (Face-to-face lecture) 14 Assignment 4 Group discussion 14 Presentation 14
Workload	<i>(Estimated) Total workload: 2 x 2.83 hours = 5.66 hours per week.</i> <i>Contact hours (lecture): 2 x 0.83 hours = 1.66 hours per week.</i> <i>Private study including examination preparation, specified in hours: 2 x 2 hours = 4 hours</i> <i>2 x 50 minutes lectures,</i> <i>2 x 60 minutes structured activity,</i> <i>2 x 60 minutes individual activity,</i> <i>79.33 total hours</i>
Credit points	2 (3.34 ECTS)
Requirements according to the examination regulations	Registered in this course Minimum 75% attendance in this course
Learning goals/competencies:	Intended Learning Outcomes (ILO) After taking this course, students will be able to: 1. LO-1

	2. LO-3												
Module objectives	Students are able to master the latest developments in the field of biochemistry. • Students can use CRISPR for human welfare • Students can interpret a phylogenetic tree • Students can interpret metabolomic data • Students can explain and interpret nutrigenomic • Students can explain HDTs												
Content:	• To introduce the course contract • Review Journal: the latest research in biochemistry Selected content as follows: • History, mechanism, and application of Clustered regularly interspaced short palindromic repeats (CRISPR) • Theory, construction, and interpretation of phylogenetic trees • Metabolomic: history, analysis, and interpretation of data • Nutrigenomic • Halal detection technologies (HDTs) of food/cosmetic/pharmaceutical												
Attribute Soft skill:	Discipline, collaboration, responsibility, and argumentation in the natural classroom setting												
Recommended prerequisites	Biochemistry II												
Study and examination requirements and forms of examination	Students are considered to be competent and pass if they get at least 50% of the maximum final grade. The final grade (NA) is calculated based on the following : <table border="1"> <thead> <tr> <th>Assessment Components</th><th>Percentage Contribution</th></tr> </thead> <tbody> <tr> <td>Participation</td><td>10%</td></tr> <tr> <td>Assignment</td><td>20%</td></tr> <tr> <td>Mid-semester test</td><td>35 %</td></tr> <tr> <td>Final semester test</td><td>35%</td></tr> <tr> <td>Total</td><td>100%</td></tr> </tbody> </table> The student competency is assessed from activity student in the class, assignments, quizzes, presentations, and tests	Assessment Components	Percentage Contribution	Participation	10%	Assignment	20%	Mid-semester test	35 %	Final semester test	35%	Total	100%
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Final semester test	35%												
Total	100%												
Learning Methods	Team-Based Project (Project or Case-Based Learning)												
Media employed	white board; power point presentation; and e-learning system												

Reading list	Selected journals related to the topic
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