

Module Description

MPKP 433 Selected Topics in Analytical Chemistry

Module Name	Selected Topics in Analytical Chemistry
Module level, if applicable	Undergraduate Programme
Code, if applicable	MPKP 433
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	7 th Semester
Module coordinator(s):	Dr. Lia Destiarti
Lecturer	Dr. Gusrizal Dr. Lia Destiarti
Language	Bahasa Indonesia
Relation to curriculum	Elective Courses for the Undergraduate Programme in Chemistry
Type of teaching, contact hours	Decide teaching/training components for each course outcome • Theory /Face-to-face lecture (for understanding): 4 lecture meetings • Seminar (for communication skills): 6 • Problems: 2 • Assignments: 2
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 75% attendance in this course
Learning	Intended Learning Outcomes (ILO)

goals/competencies:	After taking this course, students will be able to: 1. LO-1 2. LO-2 3. LO-4 4. LO 5												
Module objectives	1. A student can explain the steps in the validation and verification of the analysis method 2. A student can describe the requirement in ISO 17025 3. Students can explain the latest developments in the field of analytical chemistry (separation and measurement techniques) 4. Students can analyse and apply appropriate analytical tools												
Content:	1. Validation and verification of the analysis method 2. Implementation of ISO 17025 3. Latest trend in measurement methods 4. The latest trend in separated methods												
Attribute Soft skill:	Discipline, collaboration, responsibility, and argumentation in a small group of a natural classroom setting												
Recommended prerequisites	-												
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> Mid and final semester tests are carried out as an essay exam.	Assessment Components	Percentage Contribution	Participation	10%	Assignment	20%	Mid-semester test	35 %	Final semester test	35%	Total	100%
Assessment Components	Percentage Contribution												
Participation	10%												
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Total	100%												
Learning Methods	Case-Based Teaching Method												
Media employed	Whiteboard, PowerPoint presentation, and e-learning system												
Reading list	1. Document of ISO/IEC 17025:2017 2. Chatterjee, N.S. Priya E.R., Uchoi, D., Kishore, P., Panda, S.K., 2022, Validation and Verification of Chemical Testing												

	Methods, e-ITEC Training manual on 'Quality Assurance of Fish and Fishery Products', 395-403 3. Latest publication (article, research paper) [< 3 y] related to purification and measurement methods
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