

Module Description

MPK 2405 Organic Compound Reactions Laboratory

Module Name	Organic Compound Reactions Laboratory
Module level, if applicable	Undergraduate Programme
Code, if applicable	MPK 2405
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	4 th Semester
Module coordinator(s):	Rudiyansyah, Ph.D
Lecturer	Dr. Andi Hairil Alimuddin, Dr. M. Agus Wibowo, Afghani Jayuska, M.Si
Language	Bahasa Indonesia
Relation to curriculum	<i>Compulsory</i> Courses for the undergraduate programme in Chemistry
Type of teaching, contact hours	● Laboratory work: 6 meetings ● Self-study: 6 meetings ● Tutorial/assistance: 3 meetings ● Examination: 1 meeting
Workload	<i>(Estimated)</i> <i>Contact hours (laboratory work): 6 x 5,66 hours = 33,96 hours</i> <i>Self-study, including examination preparation, specified in hours: 6 x 5,66 hours = 33,96 hours</i> <i>Tutorial/assistance: 3 x 5,66 hours = 16,98 hours</i> <i>Examination: 1 x 5,66 hours = 5,66 hours</i> <i>Total workload: 90,56 hours per semester</i>
Credit points	2 (3.34 ECTS)
Requirements according to the examination regulations	Registered in this course 100% 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

	3. LO-4 4. LO-5														
Module objectives	1. Students demonstrate an extraction method from natural resources 2. Students recognise isolation and identification of essential oils. 3. Students understand how to perform and recognise the difference between esterification and transesterification 4. Students are able to run a saponification reaction 5. Students understand how to synthesize organic compounds														
Content:	1. Extraction 2. Isolation of essential oil 3. Esterification 4. Transesterification 5. Saponification 6. Synthesis of aspirin 7. Synthesis of sulfanilic acid 8. Synthesis of Benzyl alcohol and benzoic acid														
Attribute Soft skill: (kemampuan yang)	Discipline, effort, collaboration, responsibility, and argumentation in the natural classroom setting														
Recommended prerequisites	Fundamentals of Organic Chemistry														
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>Pre-test/quiz</td><td>10%</td></tr> <tr> <td>Practical journal</td><td>20%</td></tr> <tr> <td>Practical skills</td><td>20%</td></tr> <tr> <td>Practical report</td><td>25 %</td></tr> <tr> <td>Final test</td><td>25%</td></tr> <tr> <td>Total</td><td>100%</td></tr> </tbody> </table> Assignment and final semester test are carried out as an essay exam.	Assessment Components	Percentage Contribution	Pre-test/quiz	10%	Practical journal	20%	Practical skills	20%	Practical report	25 %	Final test	25%	Total	100%
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Total	100%														

Learning Methods	Practicum
Media employed	Lab equipment and e-learning system
Reading list	1. Becker, H., 1973, <i>Organicum: Practical Handbook of Organic Chemistry</i>, Addison-Wesley Pub. Corp. 2. Fiescher, L., Fiescher, M., 1986, <i>Experiment in Organic Chemistry</i>, Reinhold Pub.Corp. 3. Furniss, B. S., 1990, <i>Vogel's Textbook of Practical Organic Chemistry</i>, 5th ed., Longman 4. Fessenden, R. J., Fessenden, J. S., 1994, <i>Organic Chemistry</i>, 5th ed., Brooks Cole. 5. Morrison, R. T. Boyd, R. N., 1983, <i>Organic Chemistry</i>, 4th edition, Allyn & Bacon. 6. Solomons, T. W. G. and Fryhle, C. (2007) <i>Organic Chemistry</i>, John Wiley & Sons, New York