



UNIVERSITAS NEGERI YOGYAKARTA
 FACULTY OF MATHEMATICS AND NATURAL SCIENCES
 DEPARTMENT OF CHEMISTRY EDUCATION
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Bachelor of Education in Chemistry

MODULE HANDBOOK

Module name:	Program Development of Chemistry Learning
Module level, if applicable:	Undergraduate
Code:	MPK6306
Sub-heading, if applicable:	-
Classes, if applicable:	2
Semester:	5
Module coordinator:	Dr. Das Salirawati, M.Si.
Lecturer(s):	Drs. Heru Pratomo AL., M.Si.; Anggiyani Ratnaningtyas Eka Nugraheni, S.Pd.Si.,M.Pd.; Sukisman Purtadi, S.Pd.,M.Pd.
Language:	Bahasa Indonesia and English
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	100 minutes lectures, 120 minutes individual study, and 120 minutes structured activities per week.
Workload:	Total workload is 90.67 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 (3.29 ETCS)
Prerequisites course(s):	-
Course Outcomes:	<p>After taking this course, the students are expected to be able to:</p> <p>CO1.</p> <ul style="list-style-type: none"> - apply an educational learning model - apply learning media according to the lesson plan in learning <p>CO2.</p> <ul style="list-style-type: none"> - study the chemistry syllabus for Senior High School/Islamic Senior High School - describe core competencies and basic competencies into indicators, and learning objectives <p>CO3.</p> <ul style="list-style-type: none"> - make planning on the implementation of learning activities outside the classroom - plan learning based on assessment results in the form of enrichment and remedial <p>CO4.</p> <ul style="list-style-type: none"> - arrange annual programs, semester programs and chemistry learning programs - prepare lesson plan for learning according to the guidelines for preparing lesson plans - arrange teaching materials according to the indicators and

	<p>learning objectives that have been formulated</p> <ul style="list-style-type: none"> - develop assessments and apply them to learning 															
Content:	<p>This course is designed to provide skills for students in developing chemistry learning programs that are active, innovative, creative, interesting and authentic. Therefore, the discussion in this course includes: compiling the semester program, explaining the procedure of curriculum analysis, setting the indicators according to Core Competency-Basic Competency, determining the subject matter / study material for a Basic Competency, designing learning strategies that educate, student-centered contextual learning , designing learning media, as well as authentic assessment in the domain of attitudes, cognitive, and skills, and producing learning devices (Lesson Plan to assessment instruments)</p>															
Study / exam achievements:	<p>Attitude assessment is carried out at each meeting by observation and/or self-assessment techniques using the assumption that basically every student has a good attitude. The student is marked very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not taken into account in the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table border="1"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO1, CO2, CO3, CO4.</td> <td>Assignments Final Exam Participation</td> <td>Presentation / written test</td> <td>60% 20% 20%</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3, CO4.	Assignments Final Exam Participation	Presentation / written test	60% 20% 20%				Total	100%
No	CO	Assessment Object	Assessment Technique	Weight												
1	CO1, CO2, CO3, CO4.	Assignments Final Exam Participation	Presentation / written test	60% 20% 20%												
			Total	100%												
Forms of media:	Board, LCD Projector, Laptop/Computer, tools and chemicals.															
References:	<p>Majid, Abdul. 2009. <i>Perencanaan Pembelajaran</i>. Bandung: Remaja Rosdakarya.</p> <p><i>Permendikbud RI No. 21 th 2016 tentang Standar Isi</i> <i>Permendikbud RI No. 22 th 2016 tentang Standar Proses</i> <i>Permendikbud RI No. 23 th 2016 tentang Standar Penilaian</i> <i>Permendikbud Tahun 2016 Nomor 024 tentang Kompetensi Inti dan Kompetensi Dasar</i></p> <p>Suggested Reading</p> <p>Norbert M. Seel, Thomas Lehmann, Patrick Blumschein, Oleg A. Podolskiy). (2017). <i>Instructional Design for Learning_ Theoretical Foundations</i>-SensePublishers</p> <p>Charles M. Reigeluth, Brian J. Beatty, Rodney D. Myers. (2017). <i>Instructional-Design Theories and Models, Volume IV. The Learner-Centered Paradigm of Education</i>. Routledge</p> <p>Robert Bodily, Heather Leary, Richard E. West. (2019). Research trends in instructional design and technology journals. <i>British Journal of Educatinal Technology (BJET)</i> 50 (1): 64 -79 DOI: https://doi.org/10.1111/bjet.12712</p>															

PLO and CO mapping

	PLO					
	Attitude		Knowledge	Specific Skill	General Skill	
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CO1			√			
CO2			√			
CO3				√		
CO4				√		