

Module Descriptions

Module designation	<i>Basic Chemistry II (MPK 6337)</i>
Semester(s) in which the module is taught	1
Person responsible for the module	<i>Dr. Siti Marwati, M.Si.</i>
Language	<i>Indonesia</i>
Relation to curriculum	Compulsory / elective / specialisation
Teaching methods	<i>Lecture, discussion, project</i>
Workload (incl. contact hours, self-study hours)	<p>Total workload of the activity is 136 hours per semester which consist of:</p> <p><i>100 minutes/week for class learning</i></p> <p><i>120 minutes/week for structured activities</i></p> <p><i>120 minutes/week for individual study</i></p>
Credit points	<i>3 SKS (4.8 ECTS)</i>
Required and recommended prerequisites for joining the module	<i>Creativity, innovation, and entrepreneurship</i>
Module objectives/intended learning outcomes	<p><i>On successful completion of the course students should be able to:</i></p> <ul style="list-style-type: none"> <i>- take responsibility for completing all lecture assignments, both theoretical and practical.</i> <i>- analyze theoretical concepts and basic applications of chemistry including thermodynamics, kinetics, chemical equilibrium, electrochemistry, elemental abundance, nuclear chemistry and macromolecules.</i> <i>- Collaborate in carrying out practical work in the laboratory</i> <i>- communicate the results of individual practical work systematically and logically.</i>
Content	<ul style="list-style-type: none"> <i>- Thermochemistry</i> <i>- Chemical Kinetics</i> <i>- chemical equilibrium</i> <i>- Acid-Base Solution</i> <i>- Solubility</i> <i>- Redoks and Elektrochemical</i> <i>- Elemental chemistry</i> <i>- Nuclear Chemistry and Radioactivity</i> <i>- Macromolecules</i>
Examination forms	<i>Essay, E-poster, presentation, group discussion, and written tests</i>

Study and examination requirements	<p>Minimum attendance at lectures is 75%. Final score (NA) is calculated as follows:</p> <table><tr><th>Learning Outcome</th><th>Weight (%)</th><th>Technique of Assessment</th></tr><tr><td>1</td><td>5</td><td>Participation</td></tr><tr><td>3</td><td>5</td><td>Essay (Case Study)</td></tr><tr><td>4</td><td>10</td><td>Quiz</td></tr><tr><td>6</td><td>50</td><td>E-poster and Discussion</td></tr><tr><td>1,2,4</td><td>15</td><td>Mid-term Written Test</td></tr><tr><td>3,5,6</td><td>15</td><td>Final Exam Written Test</td></tr></table>	Learning Outcome	Weight (%)	Technique of Assessment	1	5	Participation	3	5	Essay (Case Study)	4	10	Quiz	6	50	E-poster and Discussion	1,2,4	15	Mid-term Written Test	3,5,6	15	Final Exam Written Test
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Reading list	<ul style="list-style-type: none">- <i>Made Sukarna (2007). Diktat Kimia Analisis 1. Analisis Kualitatif. Jurusan Pendidikan Kimia FMIPA UNY</i>- <i>Crys Fajar Partana, dkk., (2002) Common Text Book Kimia Dasar 2, Yogyakarta, UNY dan JICA</i>- <i>Buridge, Julia (2011), Chemistry 2nd Ed., New York, Mc Graw-Hill</i>- <i>Chang, Reymond (2007), Chemistry 10Th Ed, New York, McGraw-Hill</i>- <i>Jespersen, N.D. and Brady, J.E., (2004) Chemistry: The Molecular Nature of Matter, New York: John Wiley and Son</i>																					

Prepared by	Verified by:	Authorized by:
Dr. Siti Marwati, M.Si.		Program Study Coordinator