

Module Handbook

Modul Name	General Chemistry II
Modul Level	Bachelor
Abbreviation, if applicable:	KID103
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	Even (2 nd semester)
Module coordinator(s):	MKWU Teaching Staff
Lecturer(s):	MKWU Teaching Staff
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / Elective Studies
Teaching format / class hours per week during semester:	2 hours (50 minutes/hour)
Workload:	2 hours lectures, 2 hours structural activities, 2 hours individual study, 13 weeks per semester and total 65 hours = 2,6 ECTS
Credit point	2
Requirement	General chemistry I
Learning goals/ competencies	General competence : Able to explain the basic concept of chemistry, includes basic chemical reactions and calculations and carbon compounds correctly according to a reference standard Specific competence: <ol style="list-style-type: none">1. Able to explain the similarities and differences of Galvani cell and electrolysis2. Able to explain the definition of acid and base3. Able to explain the equilibrium solutions; able to calculate pH of acid-base4. Able to explain the process of hydrolysis5. Able to calculate the solubility and solubility product of substance6. Able to explain the process of titration7. Able to explain the type of colloid8. Able to explain the aldehyde and ketones compounds and the reactions9. Able to explain the carboxylic and ester compounds and the reactions10. Able to explain fatty acid and triglycerides; and the reactions11. Able to explain the amines compounds and the reactions12. Able to explain the carbohydrates compounds and the reactions13. Able to explain amino acid and protein compounds and the reactions
Content	Electrochemistry; hydrolysis and buffer; the equilibrium solutions; the theory and pH of acid-base; colloidal systems; aromatic compounds; derivative of carbohydrates; amino acid and proteins; lipids

Soft skill Attribute	Discipline and argumentation
Study/ exam achievements	<p>Students are considered to be competent and pass if at least get 40 of maximum mark of the final score.</p> <p>Final score: Paper project (30%), mid exam (35%), final exam (35%).</p> <p>Final index is defined as follow:</p> <p>A = 75-100 AB = 70-74,99 B = 65-69,99 BC = 60-64,99 C = 55-59,99 D = 40-54,99 E = 0-39,99</p>
Media	LCD
Learning Methode	Class and discussion
Literature	<ol style="list-style-type: none"> a. Brady, J.E., 1992, <i>General Chemistry</i>, 5th ed., John Wiley and Sons, New York b. Brown, W.H., 1982, <i>Introduction to Organic Chemistry</i>, 3rd ed., Williard Grant Press, Boston. c. Wilbraham, A.C., Matta M.S., 1992, <i>Pengantar Kimia Organik dan Hayati (terjemahan Suminar Achmad)</i>, Penerbit ITB.
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