

MODULE HANDBOOK

Course:	General Chemistry I
Module Level:	Undergraduate
Code:	KID101
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	2 nd / First Year
Module coordinator(s):	Dra. AningPurwaningsih M.Si
Lecturer(s):	Dra.Aning Purwaningsih,M.Si.; Dra.Tjitjiek Srie Tjahjandarie,Ph.D; Siti Wafiroh,S.Si.,M.Si.; Dr.Nanik Siti Aminah,M.Si.; Drs.Abdullah ,M.Si.; Dr.Pratiwi Pudjiastuti,M.Si.; Dra.Usreg Sri Handajani, M.Si.; Dr. Purkan, M.Si.; Dr.Hartati, M.Si.; Dr.Alfinda Novi Kristanti, DEA.; Dr.rer.nat.Ganden Supriyanto, Dipl.Est.; Dr. HerySuwito, M.Si.; Drs. Handoko Darmokoesoemo,DEA.; Dr. Mulyadi Tanjung, M.Si.; Dr. Mochamad Zakki Fahmi, M.Si.; Dr. Suyanto, M.Si.; Dr. Miratul Khasanah, M.Si. and Dr. Sri Sumarsih, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / Elective Course
Teaching format / class hours per week during semester:	2 hours of lecturers (50 min per hours)
Workload:	2 hours of lectures, 2 hours of structured activity, 2 hours of individual activity, 13 weeks per semester, total 78 hours per semester ~ 2.6
Credit Points:	2
Requirements:	-
Learning goals/competencies:	<p>General Competence (Knowledge) : After following this course, students are expected to apply the concept of the fundamentals of chemistry of inorganic compounds and identify organic compounds.</p> <p>Specific Competence:</p> <ol style="list-style-type: none"> 1. Ability to apply concepts and their application to the electrochemical voltaic cells and electrolysis. Ability to apply the concept of acid-base theory, to calculate the buffer pH of a solution and create a buffer solution at a particular pH. 2. Students are able to apply the concept of equilibrium solution and can calculate Ksp a solution. 3. Students can apply the concept of acid-base titration to calculate the levels of an acid or base quantitatively 4. Students can apply the concept of colloidal properties for everyday life 5. Students can identify aldehyde compounds ketones carboxylic esters, fatty acids, amino acids and proteins.
Contents:	Electrochemistry, the theory of acid-base balance and pH acid-base,

	hydrolysis and buffer systems, equilibrium solution, acid-base titration, and the colloidal system and the group of organic compounds, aldehydes and ketones, carboxylic esters, fatty acids and triglycerides, amines, carbohydrates, amino acids and proteins.
Soft Skill Attribute:	Good communication, Organization, Leadership, Logic, Ethics, Effort and Group
Study/Exam Achievements:	<p>Students are considered to be competent and passed if at least get 40% of maximum mark of the exams and homeworks. Type of exam is multiple choice (MC test)</p> <p>Final score is calculated as follow: 10% Homework + 15% Quiz I + 15% Quiz II + 30% midterm exam + 30% final exam</p> <p>Final grade is difined 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>
Learning Methods	LCD, power point ,hand out and white board
Forms of Media:	Lecture, discussion, and structured activities
Literature(s):	<ol style="list-style-type: none"> 1. Brady, J.E., 1992, General Chemistry, 5th ed., John Wiley and Sons, New York 2. Whitten, K.D. , Davis, R.E., Gailey, K.D., 1992. General Chemistry with Qualitative Analysis, Ed. 4 th, Saunders College Publ., USA. 3. Brown, W.H., 1982, Introduction to Organic Chemistry, 3rd ed., Williard Grant Press, Boston 4. Wilbraham, A.C., Matta M.S., 1992, Pengantar Kimia Organik dan Hayati (terjemahan Suminar Achmad), Penerbit ITB
Notes:	*Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours Each ECTS is equals with 25 hours