Module Handbook

Module Name:	**General Chemistry I**
Module Level:	Bachelor
Abbreviation, if applicable:	KID101
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	1st/ First Year
Module coordinator(s):	Dra. Aning Purwaningsih 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. Hery Suwito, 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. Dr. Sri Sumarsih, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / ~~Elective Studies~~
Teaching format / class hours per week during semester:	2 hours lecturers (50 min per hours)
Workload:	2 hours lectures, 2 hours structured activity , 2 hours individual activity, 13 weeks per semester, total 78 hours per semester ~ 2.6 ECTS *
Credit Points:	2
Requirements:	-
Learning goals/competencies:	**General competence (Knowledge):** Students are able to apply the concept of composition of matter, basic reactions and stoichiometry (chemical calculations) and to identify carbon compounds. **Specific Competence:** 1. Ability to apply concepts about the structure of atoms and the periodic system so that it can determine the properties of an element 2. Ability to apply the concept of the chemical bond in a compound and determine its properties. 3. Students are able to apply the concept to stoichiometric chemical reactions are redox reactions and calculate the speed of the reaction. 4. Students are able to apply the concept of electrolyte solution and its non electrolyte sertasifat 5. Students can identify the class of organic compounds are aliphatic hydrocarbons, alkanes, cycloalkanes, alkyl halides, alkenes, alkynes, aromatic compounds, alcohols, ethers and their reaction
Content:	Atomic Structure and the Periodic System; Chemical bonding: ionic bonding, covalent, coordinate, hydrogen bonds; stoichiometry; Redox

	and Thermochemistry; Reaction rate ; Reaction equilibrium; The solution: the type and concentration, colligative properties of solutions; Introduction to Organic Chemistry, Aliphatic hydrocarbons: alkanes and cycloalkanes, alkyl halides, alkene and alkyne, Aromatic Compounds; Alcohol and Ether
Atribut Soft skill	Discipline of presence in class and submitting assignment on time
Study/exam achievements:	Students are considered to be competent and pass if at least get C . The final value is calculated as follows: Assignment 1 = 15%, 2 = 15% Assignment (Ratings including the discipline of attending classes and punctual in duties. Any delay class attendance assignment value decreases of 2.5 and delays in assignments minus 5 (applicable multiples that his assignment delayed by more than one day), UTS 35% and UAS 35%. Table Value Graduation A: 100> NA≥75 AB: 74,9≥NA≥70 B: 69,9≥NA≥65 BC: 64,9≥NA≥60 C: 59,9≥NA≥55 D: 54,9≥NA≥40 E: 39,9≥NA
Learning Methods	Lecture, discussion, and structured activities
Forms of Media:	LCD, power point ,hand out and white board
Literature:	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**