MODULE HANDBOOK CHEMISTRY 1

| Module level Code SK184101 |
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| Course (if applicable) Semester First/Second Semester Person responsible for the module Lecturer Language Relation to curriculum Type of teaching, contact hours Workload 1. Lectures: 3 x 50 = 150 minutes per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private learning: 2 x 60 = 120 minutes (2 hours) per week. Credit points A student must have attended at least 75% of the lectures to sit in the exams. Mandatory prerequisites Learning outcomes and their corresponding PLOs Chemistry 1 Drs. Muhamad Nadjib, MS Nandatory prerequisites Chemistry Lecturer Team Lectures Team Lectures Team Drs. Muhamad Nadjib, MS Nandatory, 1st/2nd semester. Lectures: 3 x 50 = 150 minutes per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private learning: 2 x 60 = 120 minutes (2 hours) per week. Credit points A student must have attended at least 75% of the lectures to sit in the exams. Course Learning Outcome (CLO) after completing this module, CLO 1 Students are able to use the basic principles of chemistry as a basis for studying science related to |
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| CLO 2 Students can perform basic chemical calculations PLO 1,5,8 |
| Content This course studies the basic principles of chemistry which are used |
| as the basis for studying the next subject related to chemistry. The |
| materials presented including atomic theory, chemical bonds, |
| stoichiometry, state of matter and phase changes, acid-base |
| theorem, ionic equilibrium in solution, chemical thermodynamics, |
| chemical kinetics and electrochemistry. |
| Study and • In-class exercises |
| examination • Assignment 1, 2, 3 |
| Mid-term examination |

| requirements and forms of examination | Final examination |
|---------------------------------------|--|
| Media employed | LCD, whiteboard, websites (myITS Classroom), zoom. |
| Reading list | Main: |
| | Tim Dosen Departemen Kimia, (2019). "Kimia 1", edisi kedua, Media Bersaudara, Surabaya. |
| | Supporting: |
| | 1. Oxtoby, D.W., Gillis, H.P. and Campion, A., (2012). "Principles of Modern Chemistry", 7th Edition, Brooks/Cole. |
| | 2. Chang, R. and Goldsby, K., (2012). "Chemistry", 11th Edition, McGraw-Hill, USA. |
| | 3. Goldberg, D. E., (2007). "Fundamental of Chemistry", 4th Edition, McGraw-Hill Companies |