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| Module designation | Basic Chemistry I |
| Module level, if applicable | Undergraduate |
| Code, if applicable | PIPAUM6301 |
| Subtitle, if applicable | *-* |
| Courses, if applicable | *-* |
| Semester(s) in which the module is taught | Even |
| Person responsible for the module | Isnanik Juni Fitriyah, S.Pd., M.Si. |
| Lecturer | Isnanik Juni Fitriyah, S.Pd., M.Si., Dr. Munzil, M.Si. |
| Language | Bahasa Indonesia |
| Relation to curriculum | Undergraduate degree program, elective, 1th semester. |
| Type of teaching, contact hours | Direct instruction for lectures, cooperative learning for experiments, 200 minutes for lectures and 170 minutes for experiments per week |
| Workload | 1. Lectures: 4 x 50 = 200 minutes (3.3 hours) per week. 2. Exercises and Assignments: 4 x 60 = 240 minutes (4 hours) per week. 3. Private study: 4 x 60 = 240 minutes (4 hours) per week. 4. Experiments: 170 minutes per week |
| Credit points | 4 credit points (~6.35 ECTS-eq). |
| Requirements according to the examination regulations | A student must have attended at least 80% of the lectures to sit in the exams. |
| Recommended prerequisites |  |
| Module objectives/intended learning outcomes | After completing this module, a student is expected:  LO 3 : Demonstrate knowledge of basic chemistry  LO 4 : Analyze and communicate science phenomena in an integrated manner to solve problems |
| Content | 1. Basic principles of chemistry: elements, compounds, mixtures, separation of mixtures, atomic theory, basic laws of chemistry, trivial nomenclature, IUPAC chemical compounds. 2. Chemical reactions; physical changes, chemical changes, 3. Stokiometry; number of particles, mass, moles, volume, molarity, 4. Chemical bonds; types, properties and structure of substances,   The topics on the subject are focused to the following subtopics:   1. Elements, compounds, mixtures. 2. Methods of separation of compounds and mixtures. 3. Atomic theory 4. Basic laws of chemistry 5. Trivial nomenclature 6. IUPAC nomenclature 7. Chemical changes 8. Chemical changes 9. Stokiometry 10. Chemical bonds 11. The nature and structure of the substance   Types of chemical reactions. |
| Study and examination requirements and forms of examination | Assessment of student learning achievement by assessing daily assignments, class discussions, practical performance, writing experiment reports, midterm and final semester exams |
| Media employed | Kahoot, sipejar, youtube |
| Reading list | 1. Chang, R. & Goldsby, K.A. 2015*. Chemistry. (12th Edition).* Florida: Mc Graw Hill Education. 2. Barke, H., Al Hazari & Yitbarek, S. 2009. *Misconceptions in Chemistry*. Berlin: Springer. |