|  |  |
| --- | --- |
| **Undergraduate Programme in Chemistry**  Telp : +62274 519739  Email : [matematika@uin-suka.ac.id](mailto:matematika@uin-suka.ac.id)  Website : <http://matematika.uin-suka.ac.id/> | **MODULE HANDBOOK** |

|  |  |
| --- | --- |
| Module Name | Elementary Inorganic Structure |
| Module level, if applicable | Bachelor |
| Code, if applicable | KIM414006 |
| Subtitle, if applicable | - |
| Courses, if applicable | Elementary Inorganic Structure (Sruktur Senyawa Anorganik) |
| Semester(s) in which the module is taught | 2nd  (second) |
| Person responsible for the module | Endaruji Sedyadi, S.Si., M.Sc. |
| Lecturer(s) | Endaruji Sedyadi, S.Si., M.Sc. |
| Language | Indonesia |
| Relation to curriculum | Mandatory course in the First year (2nd semester) Bachelor Degree |
| Type of teaching, contact hours | 100 minutes lectures and 120 minutes structured activities per week. |
| Workload | Total workload is 90.7 hours per semester, which consists of 100 minutes lectures per week for 14 weeks, 120 minutes structured activities per week, 120 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam |
| Credit points | 2 |
| Requirements according to the examination regulations | Student not allowed to follow final exam if failed to attend 75% lectures class minimum |
| Recommended prerequisites | No prerequisites stated on |
| Module objectives/intended learning outcomes | After completing this course, the students are able to:   |  |  | | --- | --- | | CO 1. | describe the development of atomic theory and the periodic system of elements | | CO 2. | describe the ionic and covalent characters of an inorganic compound | | CO 3.  CO 4. | explain the Lewis and VSEPR theories in explaining the chemical bond  describe the structure and chemical bonds of the solid state | |
| Content | 1. Introduction to Inorganic Chemistry  2. Atomic Structure  3. Molecular Structure  4. Atom/ion/molecule interactions in inorganic compounds  5. Physical Properties of Inorganic Compounds  6. Periodic System Table of Elements  7. Description of elements, electronic structure, properties, compounds and benefits of elements |
| Study and examination requirements and forms of examination | The final mark will be weighted as follows:   |  |  |  | | --- | --- | --- | | **NO** | **Assessment methods (components, activities)** | **Weight (percentage)** | | 1 | Final Examination | 20% | | 2 | Mid-Term Examination | 20% | | 3 | Class Activities : Quiz, Homework, etc. | 20% | | 4 | Assignment | 40% |   The final assessment is expressed in the form of a letter value converted from a number value with the following categories:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **NO** | **Number Value** | **Letter Value** | **NO** | **Number Value** | **Letter Value** | | 1 | ≥ 95 | A | 7 | 65-69.99 | B/C | | 2 | 90-94.99 | A- | 8 | 60-64.99 | C+ | | 3 | 85-89.99 | A/B | 9 | 55-59.99 | C | | 4 | 80-84.99 | B+ | 10 | 50-54.99 | C- | | 5 | 75-79.99 | B | 11 | 55-34.99 | D | | 6 | 70-74.99 | B- | 12 | <35 | E | |
| Media employed | White-board, Lcd Projector, e-learning (<https://daring.uin-suka.ac.id/>) |
| Reading list | Mandatory:  1. Cotton, F.A. and Wilkinson, G., Kimia Anorganik Dasar (terjemahan), UI-Press, Jakarta.  2. Greenwood, N.N. dan Earnshaw, A., Chemsitry of Elements, Second Edition, Butterworth-Heinemann.  3. Huheey, J.E. et al., Inorganic Chemistry: Principles, Structure and Reactivity, Harper Collins College Publisher, NY.  4. House, J.E., 2008, inorganic Chemistry, Elsevier-AP, London.  5. Housecroft, C. 2005, Inorganic Chemistry, Second Edition, Pearson Education Limited, London.  6. Miessler, G.L., 2004, Inorganic Chemistry, Third Edition, pearson education International.  7. Muller, U. 2006, Inorganic Structural Chemistry, Second Edition, John Wiley & Sons, Ltd., England  Optional:  8. Saito, T., Kimia Anorganik, Iwanami Shoten Publisher, Tokyo. (Penerjemah: Ismunandar)  9. Sanderson, R. T., Fundamental Principles of Chemical Reactions, Laboratory for InOrganic Chemistry, Gadjah Mada University  10. Shriver, D. F., Atkins, P. W, 2010, Inorganic Chemistry Fifth Edition, Oxford University  11. Sugiyarto, K. H., Kimia Anorganik I Dasar-dasar Kimia Anorganik Nonlogam, Universitas Negeri Yogyakarta  12. Sugiyarto, K. H., Kimia Anorganik II, Universitas Negeri Yogyakarta |

**PLO and CO Mapping**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **PLO 1** | **PLO 2** | **PLO 3** | **PLO 4** | **PLO 5** | **PLO 6** | **PLO 7** | **PLO 8** | **PLO 9** |
| **CO 1** |  |  | ✓ | ✓ |  |  |  |  |  |
| **CO 2** |  |  | ✓ |  |  |  |  |  |  |
| **CO 3** |  |  |  | ✓ |  |  |  |  |  |
| **CO 4** |  |  | ✓ | ✓ |  |  |  |  |  |