**Bachelor of Education in Science           MODULE HANDBOOK**

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| Module designation | Basic Biology I |
| Module level, if applicable | Undergraduate |
| Code, if applicable | PIPAUM6101 |
| Subtitle, if applicable | *-* |
| Courses, if applicable | *-* |
| Semester(s) in which the module is taught | Odd |
| Person responsible for the module | Erti Hamimi, S.Pd., M.Sc |
| Lecturer | Erti Hamimi, S.Pd., M.Sc  Novida Pratiwi, S.Si., M.Sc |
| Language | Bahasa Indonesia |
| Relation to curriculum | Undergraduate degree program, compulsory, 1st semester. |
| Type of teaching, contact hours | Undergraduate degree program: cooperative learning, presentation, laboratory work, 3 x 50 = 150 minutes and 1 x 170 minutes |
| Workload | 1. Lectures: 3 x 50 = 150 minutes (2.5 hours) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Laboratory work: 1 x 170 minutes (2.83 hours) per week. 4. Private study: 3 x 60 = 180 minutes (3 hours) 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 to: LO1: Capable in mastering basic biology knowledge using the Nature of Science (NOS) along with logical, critical, systematical, and innovative thinking in team collaboration using local potential and information technology development. |
| Content | This course covers the following three main topics: 1) Cell; Structure and function of cell organelles, cell membrane transport (passive and active transport), 2) Structure and function of plants; morphological structure, anatomical structure, plant physiology, vegetative and generative reproduction of plants. |
| Study and examination requirements and forms of examination | Assignment, Quiz, Midterm examination, Final examination, Performance |
| Media employed | LCD, power point, white board, video and moodle (Sipejar) |
| Reading list | 1. Duca, Maria. 2015. *Plant Physiology.* Switzerland: Springer International Publishing. 2. Lodish, Berk, Kaiser, Krieger, Bretscher, Ploegh, Amon, & Martin. *Molecular Cell Biology*. Eight Edition. New York: Katherine Ahr Parker. 3. Thomas D.P., William C.E., Jennifer L.S., & Graham, J. 2017. *Cell Biology:* 3rd Edition. New York: Elsevier. 4. Tjitrosoepomo, Gembong. 2011. *Morfologi Tumbuhan.* Yogyakarta: Gadjah Mada University Press 5. Urry, L.A., Michael L.C., Steven, A.W., Peter V.M & Jane B.R. 2016. *Campbell Biology*. Eleventh Edition. New York: Pearson. |