Module Descriptions

Module designation	**Bioethics** (course code MPB 2179)
Semester(s) in which the module is taught	3rd semester of Bachelor Programme in Biology
Person responsible for the module	Diah Wulandari Rousdy, S.Si., M.Sc.
Lecture (s)	1. Diah Wulandari Rousdy, S.Si., M.Sc. 2. Rikhsan Kurniatuhadi, S.Si., M.Si.
Language	Indonesia
Names of other study programmes with which the module is shared	-
Relation to curriculum	Elective course
Teaching methods	The learning outcomes will be met through a mixture of lectures, case-based learning, assignment sessions, and self-study.
Workload (incl. contact hours, self-study)	Total workload: 4.38 ECTS Lecture: 26,6 hours (0,99 ECTS) Assignment: 46.5 hours (1.72 ECTS) Self-study: 44.9 hours (1.67 ECTS) Self-study hours are estimation numbers of hours; each student will approach studying in different ways.
Credit points	2 credits
Required and recommended prerequisites for joining the module	Students have taken **Biology (MPB 1100)**
Module objectives/intended learning outcomes	***Intended Learning Outcomes (ILO)*** **Attitude (ILO-1)** Having academic integrity, grounded in the principles of religion and Pancasila, is essential for contributing to the advancement of the nation and the state. **Knowledge (ILO-2)** Able to integrate and apply biological science and other scientific fields that support the development of biological science. **General Skill (ILO-3)** Able to collaborate effectively within a team and to communicate actively, both orally and in writing, in the domain of biology. ***Course learning outcomes (CLO)*** **CLO 1**. Students are able to exhibit honesty, fairness, mutual respect, and responsibility in all academic activities. **CLO 2.** Students are able to implement the foundational principles of bioethics that support educational activities. **CO 14.** Students are able to apply the principles of microbiology, zoology, and botany to facilitate the utilization of biological resources and the development of biologically-based products. **CO 17.** Students are able to collaborate within a team to successfully complete case studies or projects in the field of biology and to present the findings effectively.

Content	Bioethics is a course that discusses human ethics in their interactions with other living things. The students are able to understand the scope of bioethics, Beauchamp & Childress bioethics principles, Bellmont Report & Unesco bioethics principles, bioethics principles in animal research, Bioethics in the use of stored biological materials (BBT), bioethics in biotechnology, bioethics in biodiversity and environmental conservation, bioethics in writing scientific papers, health research ethics commissions & Ethical Clearance. The students are also able to analyse cases of violations of bioethical principles.
Examination forms	1. Midterm (written test) 25% 2. Final Exams (written test) 25% 3. Assignment (case report, presentation) 40% 4. Individual quiz 10%
Study and examination requirements	75% attendance
Reading list	1. Kusmaryanto, C.B., 2022. Bioetika Fundamental, Gramedia Pustaka Utama, Jakarta 2. Kusmaryanto, C.B., 2005. Bioetika, Gramedia Pustaka Utama, Jakarta 3. Chang, W. 2009. Bioetika Sebuah Pengantar. Penerbit Kanisius 4. LaFollette, M.R., O'Haire, M.E., Cloutier, S., Blankenberger, B., Gaskill, B.N. 2017. Rat tickling: A systematic review of applications, outcomes, and moderators. PLoS ONE 12(4): e0175320. https://doi.org/10.1371/journal.pone.0175320 5. Choi, T., Choi, T., Lee, Y., Choe, S., Kim, C. 2021. Zebrafish as an animal model for biomedical research. Experimental & Molecular Medicine 53:310–317 https://doi.org/10.1038/s12276-021-00571-5