

Module Descriptions

Module designation	Population Genetics (course code MPU 2264)
Semester(s) in which the module is taught	4 st semester of Bachelor Programme in Biology
Person responsible for the module	1. Siti Ifadatin, M.Si.
Lecture (s)	1. Siti Ifadatin, M.Si. 2. Masnur Turnip, M.Sc.
Language	Indonesia
Names of other study programmes with which the module is shared	-
Relation to curriculum	Elective course
Teaching methods	A combination of learning methods consisting of lectures and discussions.
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	-
Module objectives/intended learning outcomes	<i>Intended Learning Outcomes (ILO)</i> 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. (ILO-4) The ability to engage in critical, creative, and innovative thinking, coupled with a commitment to lifelong learning in the fields of biological science and entrepreneurship. <i>Course learning outcomes (CO)</i> CLO 13. The ability to integrate the disciplines of ecology, evolution, and genetics is essential for comprehensively understanding the concept of biodiversity, particularly in the context of sustainable natural resource management. CLO 17. The ability to collaborate within a team to successfully complete case studies or projects in the field of biology and to present the findings effectively. CLO 20. The ability to critically and logically analyze biological issues, based on both fundamental and advanced principles of biology.

Content	This course studies, describes and explains the diversity and biological characteristics of nematodes as well as their ecological functions and importance. It also explains in detail the morphological and biological characteristics of nematodes that are plant parasites, free living forms and parasites in animals. This course also explains the functional role and bioindicator potential of nematodes so that appreciation can understand aspects of nematode biology and ecology as well as challenges and opportunities for sustainable ecosystem management.
Examination forms	1. Midterm 30% 2. Final Exams 40% 3. Assignment (quiz, literature review) 20% 4. Student Activity 10%
Study and examination requirements	75% attendance
Reading list	1. Mangoendidjojo, W. (2018). Genetika Populasi. UGM Press. 2. Hamilton, M.B. 2021. Population Genetics. Willey-Blackwell 3. Irawan, B. (2023). Genetika Populasi. Airlangga University Press. 4. Nicholas, F.W. 1996. Introduction to Veterinary Genetics. Oxford University Press. Britain. 5. Irawan, B. (2023). <i>Genetika Populasi</i>. Airlangga University Press. 6. Rimbawanto, A., Widyatmoko, A. Y. P. B. C., & Sulistyowati, P. (2006). Distribusi keragaman genetik populasi Santalum album berdasarkan penanda RAPD. <i>Jurnal Penelitian Hutan Tanaman</i>, 3(3), 175-181.