

Module Descriptions

Module designation	Biostatistics I (course code MPB 2112)
Semester(s) in which the module is taught	2 nd semester of Bachelor Programme in Biology
Person responsible for the module	Prof. Dr. Rafdinal, M.Si.
Lecture (s)	1. Prof. Dr. Rafdinal, M.Si. 2. Irwan Lovadi, M.App.Sci., Ph.D. 3. Riyandi, M.Si. 4. Firman Saputra, M.Sc.
Language	Indonesia
Names of other study programmes with which the module is shared	-
Relation to curriculum	Compulsory course
Teaching methods	Lecture, case-based learning
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. <i>Course learning outcomes (CO)</i> CLO 5. The ability to integrate various scientific disciplines, including chemistry, physics, mathematics, and information technology, is fundamental to the advancement and support of biological sciences. CLO 15. The ability to analyse biological scientific data through the application of computational analytical technologies.
Content	Biostatistics I is a course that discusses the statistical methods in biology. It focuses on collecting, analysing, and interpreting data to understand research outcomes, identify risk factors, and evaluate interventions. Students are also able to analyse several cases related to biological research.
Examination forms	1. Midterm 30% 2. Final Exams 40% 3. Assignment (case study) 20% 4. Activity 10%
Study and examination requirements	75% attendance

Reading list	1. Bluman, A. G. (2017). <i>Elementary Statistics: A Step by Step Approach</i> (9th ed.). McGraw-Hill. 2. Holmes, S and Huber, W. (2019). <i>Modern Statistics for Modern Biology</i>. Cambridge University Press. 3. Moore, D. S., McCabe, G. P., & Craig, B. A. (2016). <i>Introduction to the Practice of Statistics</i> (9th ed.). W. H. Freeman. 4. Rosner, B. (2013). <i>Fundamental of Biostatistics</i>. (7th ed.). Cengage Learning. 5. Walpole, R. E., Myers, R. H., Myers, S. L., & Ye, K. (2018). <i>Probability & Statistics for Engineers & Scientists</i> (10th ed.). Pearson. 6. Zar, J. (2013). <i>Biostatistical Analysis</i>. (5th ed.). Pearson International.
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