

Module Description

Module name	Course Module of Statistic
Module level, if applicable	Magister of Biology Education
Code, if applicable	30061013
Subtitle, if applicable	-
Course, if applicable	Statistic
Semester(s) in which the module is taught	II
Person responsible for the module	Lecturer of Courses
Lecturer	Dr. Adi Syahputra, M.Si, Dr. Diana Vivanti, M.Si, Dr. Rusdi, M.Biomed
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a mandatory course for Magister of Biology Education and offered in the 1 st semester.
Type of teaching, contact hours	<p>Teaching methods used in this course are:</p> <ul style="list-style-type: none"> - Lecture (i.e., group investigation, small group discussion, case study, and video-based learning) - Structured assignments (i.e., essays and case study) <p>The class size for lecture is 30 students. Contact hours for lecture is 23 hours, assignments are 28 hours</p>
Workload	<p>For this course, students required to meet a minimum of 233.2 hours in one semester, which consist of:</p> <p>32.2 hours for lecture : tutorial and discuss the subject</p> <p>22.00 hours for structured assignments : doing exercises and problem solving or project,</p> <p>162.00 hours for independent study : reading references, group discuss, finish the exercises.</p> <p>Project ; 25 hours</p> <p>Paper : 14 hours</p> <p>1 ECTS = 30 hours 233.2 hours = 7.8 ECTS</p> <p>-</p>
Credit points	3 credit points (equivalent with 4.8 ECTS)

Requirements according to the examination regulations	Students must have attended all classes and submitted all class assignments that are scheduled before the final tests.
Recommended prerequisites	Students must have attended all classes and submitted all class assignments that are scheduled before the final tests.
Module objectives/intended learning outcomes	<p>After completing the course and given with this case: Learning Outcomes</p> <p>Social Competences: 1. Able to apply analytical, critical, innovative, and abstraction thinking skills in the field of biology education (PLO2)</p> <p>Specific Competences: 1. able to analyze the basic philosophy and theory in the study of biology and biology learning philosophical concepts in compiling scientific knowledge (PLO4). 2. Able to design and publish a research through various approaches/methods to solve problems in the field of biology education (PLO5). 3. able to analyze and synthesize problem solutions in biology learning through interdisciplinary, transdisciplinary and multidisciplinary approaches (PLO10)</p>

Content	<p>Students will learn about: The Quantitative analysis; Normal distribution, t-test, Anova, Multiple regression.</p>
Forms of Assessment	Assessment is carried out based on written examinations, assessment/evaluation of the learning process and performance with the following components: Project: 20%; Structured tasks: 20%; Mid Test: 30%; Final Test: 30%
Study and examination requirements and forms of examination	<p>Study and examination requirements:</p> <ul style="list-style-type: none"> - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. <p>Form of examination: Written exam: Essay</p>
Media employed	Direct Whiteboard, Power Point Presentation, online conference platform

Reading List	<ol style="list-style-type: none"> 1. Borg and Gall (2003) Educational Research; an introduction 7th ed. New York: Pearson Education inc. 2. Donald Ary, Jacobs, L.C., Sorensen, C., Razavieh, A., 2010. Introduction to Research in Education, Belmont, Nelson Education, Ltd. 3. Howell, D. C. 2011. Fundamental Statistics for the Behavioral Sciences (7 ed). Belmont, CA: Wadsworth. 4. Johnson, R.A & Wichern, D.W .(2007). Applied Multivariate Statistical Analysis. London : Pearson Prentice Hall 5. Johnson, R. A.(2010). Statistics: Principles and Methods (6rd ed) Hoboken, NJ: John Wiley and Sons 6. John W. Best, James V. Kahn., Research in Education, 2006, Boston: Pearson Education, Inc. 7. John W. Creswell, 2012, Educational Research, Pearson: Boston 8. Tufte, E. R. (2001). <i>The Visual Display of Quantitative Information</i> (2nd ed.) (p. 178). Cheshire, CT: Graphics Press. 9.
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