



THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

Research Methodology for Biology

Course code	BIMB202101
Course level	Magister
Semester/ term	Odd and Even
Course coordinator(s)	1. Dr. RC Hidayat Soesilohadi, M.S.
Lecture(s)	2. Sukirno, S.Si., M.Sc., Ph.D.
Language	Indonesian
Classification within the Curriculum	Compulsory
Teaching format/ class hours per week during the semester	This course is organised into one class with minimum 3 enrolled students and planned to have 14 topics delivered in 14 meetings and 4 weeks of exams.
Workload	Estimated working hour: 2 credits of theory and practices.
Credits	2-0 credits
Requirements	-
Program Learning Outcome	A3 internalize the academic values, norms, and ethics as well as demonstrate responsible attitudes in their field of expertise GS2 make decisions in solving biological problems based on analytical or experimental studies and critical analysis of information and data; GS3 develop cooperation with institutions and research communities; GS6 communicate effectively (written and spoken) with at least one international language SK2 solve problems related to biological resources through an inter- and / or multidisciplinary approaches beneficial to society and scientific community
Course Learning Outcome	Able to internalize the academic values, norms, and ethics as well as demonstrate responsible attitudes in their field of expertise through their research design Able to make decisions in solving biological problems based on analytical or experimental studies and critical analysis of information and data;



THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

	<p>Able to develop cooperation with institutions and research communities;</p> <p>Able to communicate effectively (written and spoken) with at least one international language</p> <p>Able to solve problems related to biological resources through an inter- and / or multidisciplinary approaches beneficial to society and scientific community</p> <p>Able to conduct research in the field of insect biosystematics independently or in groups, and able</p>
Course Description	<p>This course studies science as a process of research methods and design in the field of biology, as well as its analysis. Determination of repetition, CV, and the size of the experimental unit. Design in experiments: Data types; Method of calculating population abundance; Criteria and determination of the test organism, the amount of variation of the test organism; Experimental Design: non factorial design CRD, CRBD, Randomizations, factorial designs CRBD, Latin Square, Strip Plot, Split Plot, Analysis of variances, multiple mean comparisons, normality and homogeneity,. T-test, Chi squared (X²); Regression; Probit Analysis, clustering and PCA</p>
Assessments	<p>Homework Assignment Midterm test Final test</p>
Study Media	<p>PPT slides, Prezi, and SPSS, Curve expert 2.2, Excel tool pack</p>
Literature	<ol style="list-style-type: none">1. Gomez K.A. & A.A.Gomez. Prosedur statistik untuk penelitian pertanian. UI Press. 2007.2. Jujun Suriasumantri: Ilmu Dalam Perspektif.3. Jurnal terkait konsep dan issue up to date