THE MODULE HANDBOOK
DOCTOR BIOLOGY STUDY PROGRAM
FACULTY OF BIOLOGY

RESEARCH METHODOLOGY AND SCIENTIFIC WRITING

Course code	BIDB203102
Course level	Doctoral Program (By Research Program)
Semester/ term	Odd/even
Course coordinator	Prof. Dr. Budi S. Daryono, M.Agr.Sc.
Lecture(s)	Prof. Dr. Budi S. Daryono, M.Agr.Sc. Zuliyati Rohmah, S.Si., M.Si., Ph.D.Eng.
Language	Indonesian/English
Classification within the Curriculum	Compulsory
Teaching format/ class hours per week during the semester	This course is planned to have 14 teaching weeks and 2 weeks of examination.
Workload	90 hours
Credits	2-0 credits / 3.6 ECTS
Requirements	Receiving approval from the Supervisory Team.
Program Learning Outcome	CPL 2.2.Upon completing this program, the graduates demonstrate an understanding of substantial and leading theory in the field of biology/biological resources in order to support education for sustainable development CPL 3.3.Upon completing this program, the graduates will be able to manage and formulate valid and accountable research data by upholding academic integrity and prioritizing anti-plagiarism. CPL 4.1. Upon completing this program, the graduates will be able to deepen and expand knowledge in the field of biology to produce models or methods or develop theories that are original, tested and innovative through research with an interdisciplinary, multidisciplinary or transdisciplinary approach; CPL 4.2. Upon completing this program, the graduates will be able to propose new solutions or recommend proposed solutions to solve biological resource problems in a sustainable manner through an interdisciplinary or multidisciplinary approach to fund deduction or induction.

	CPL 4.3. Upon completing this program, the graduates will be able to apply the philosophy of biological systems in developing biological concepts in the areas of food, health, bioenergy, biomaterial and/or the environment
Course Learning Outcome	BIDB203102.1 By the end of this course, students will be able to analyze the development of science and technology and its implications for contemporary research trends. BIDB203102.2 By the end of this course, students will be able to formulate complex and relevant research issues in the fields of science, technology, and biomedicine. BIDB203102.3 By the end of this course, students will be able to develop an innovative research proposal that incorporates considerations of biomedical ethics and scientific publication standards. BIDB203102.4 By the end of this course, students will be able to implement appropriate research methods to obtain valid and reliable data. BIDB203102.5 By the end of this course, students will be able to evaluate research findings and write them in a report that meets academic standards and publication ethics. BIDB203102.6 By the end of this course, students will be able to identify and evaluate ethical issues in biomedical research as well as intellectual property rights (IPR). BIDB203102.7 By the end of this course, students will be able to publish the research findings in reputable scientific journals by adhering to international publication ethics standards. BIDB203102.8 By the end of this course, students will be able to prepare and present articles or press releases related to research by integrating effective scientific communication skills. BIDB203102.9 By the end of this course, students will be able to evaluate innovations in research related to the industrial revolution and their impact on modern research methods.
Course Description	This course provides an understanding of research methodology and scientific writing in the fields of science and technology, with a focus on research ethics, innovation, and scientific publication. Students will learn the process of preparing proposals, conducting research, reporting research findings, and publishing in scientific journals. Additionally, aspects of biomedical ethics and Intellectual Property

	Rights (IPR) are discussed as essential components of modern research.
Assessments	The assessment for Research Methodology and Scientific Writing is based on two main components, with the respective criteria and weights: A. Participatory Activity (10%) • Participation (10%) B. Project (90%) • Stuctured Assigment/Task (20%) • Project Result (70%)
Study Media and Literature	• Dissertation writing guidebook • Any journals, books and articles related to topic