



**THE MODULE HANDBOOK**  
**DOCTOR BIOLOGICAL SCIENCES STUDY PROGRAM**  
**FACULTY OF BIOLOGY**

**SELECTED TOPIC FOR DISSERTATIONS**

**Nutrition and Metabolism**

<b>Course code</b>	BIDB203197
<b>Course level</b>	Doctoral Program
<b>Semester/ term</b>	Odd/even
<b>Course coordinator</b>	Woro Anindito Sri Tunjung, S.Si., M.Sc., Ph.D.
<b>Lecture(s)</b>	Woro Anindito Sri Tunjung, S.Si., M.Sc., Ph.D. Prof. Dr. Rarastoeti Pratiwi, M.Sc. Prof. Dr. Yekti Asih Purwestri, M.Si. Dr. Tri Rini Nuringtyas, M.Sc.
<b>Language</b>	Indonesian/English
<b>Classification within the Curriculum</b>	Compulsory Specialization Courses
<b>Teaching format/ class hours per week during the semester</b>	This course is planned to have 14 teaching weeks and 2 weeks of examination.
<b>Workload</b>	1,125 hours/day 5 days/week 5,625 hours/week 16 Weeks/Semester  total workload : 90 hours/3,6 ECTS
<b>Credits</b>	2-0 credits / 3.6 ECTS
<b>Requirements</b>	-
<b>Program Learning Outcome</b>	CPL 2.1. Upon completing this program, the graduates demonstrate an understanding of of the scientific philosophy of biology which is related in depth to structure, function, diversity, reproduction, evolution and engineering of biological systems. CPL 2.2. After attending this program, 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 3.1. After completing this program, the graduates will be able to discover or develop new scientific theories/concepts/ideas in biology



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<b>Course Learning Outcome</b>	<p>B BIDB203197.1 By the end of this course, students will be able to demonstrate an understanding of the facts, concepts, principles, and prevailing theories in nutritional biochemistry, as well as the role of nutrition in society at large and in the scientific community in particular.</p> <p>BIDB203197.2 By the end of this course, students will be able to analyze and solve problems, as well as integrate and evaluate nutritional information and data in living organisms from various sources.</p> <p>BIDB203197.3 By the end of this course, students will be proficient in communicating effectively, written and verbal, as well as through tables and figure, and in utilizing communication and information technologies, particularly in the field of nutritional biochemistry. Students will also be able to apply and integrate various nutritional phenomena into biological sciences and their sub-disciplines.</p> <p>BIDB203197.4 By the end of this course, students will be proficient in utilizing scientific literature to analyze problems in the field of nutritional biochemistry; possess a strong sense of curiosity; value originality in ideas, concepts, and discoveries; and demonstrate respect for diverse interdisciplinary perspectives in exploring, utilizing, and conserving natural resources. Students will also be sensitive to biological changes and issues at global, regional, and local levels.</p>
<b>Course Description</b>	<p>This course explores various aspects of nutritional biochemistry in humans in relation to health issues. The Nutrition and Metabolism lectures cover the types of nutrients (particularly proteins) and their sources, including microorganisms, plants, and animals—as well as the essential roles of nutrients in health and their metabolic processes, including energy balance, malnutrition, and antinutrients. The course also examines nutrigenomics and nutrigenetics to better understand health problems in line with current scientific developments. In addition, it includes a study of functional foods that support health through metabolic pathways, as well as their development and potential in promoting overall well-being</p>



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<b>Assessments</b>	<p>The assessment for Selected Topic for Dissertations (Nutrition and Metabolism) is based on five components, with the respective criteria and weights:</p> <ol style="list-style-type: none"><li>1. Presentation Assignment (30%)</li><li>2. Mid-Term Exam (20%)</li><li>3. Final-Term Exam (20%)</li><li>4. Structured Assignment/Task (20%)</li><li>5. Quiz (10%)</li></ol>
<b>Study Media and Literature</b>	<p><b>Main</b></p> <ol style="list-style-type: none"><li>1. Whitney E and Rolfes S.R. 2008. Understanding Nutrition. Eleventh Edition (International Student Edition). Thomson, Wadsworth.</li></ol> <p><b>Additional</b></p> <ol style="list-style-type: none"><li>1. Any journals related to topic</li></ol>