



THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

CELLULAR AND MOLECULAR IMMUNOLOGY

Course code	BIMB202110
Course level	Magister
Semester/ term	Odd
Course coordinator(s)	Dr.biol.hom. Nastiti Wijayanti, S.Si., M.Si
Lecture(s)	1. Dr. biol.hom. Nastiti Wijayanti, S.Si., M.Si 2. Dr. Slamet Widiyanto, S.Si., M.Sc 3. Dra. Rarastoeti Pratiwi, M.Sc., Ph.D
Language	Indonesia
Classification within the Curriculum	Compulsary Course Interest Study Program (Medical Biology and Forensic)
Teaching format/ class hours per week during the semester	This course is planned to have 14 teaching weeks and 2 weeks of examination.
Workload	Estimated working hour: 2 credits of theory and 1 credit of laboratory work.
Credits	2-1 credits
Requirements	(-)
Program Learning Outcome	<p>K1: The graduates are demonstrating excellent knowledge in biological theories, includes all aspects of biological studies at various levels in the organization of life.</p> <p>K2: The graduates are demonstrating excellent knowledge in appropriate biological research methods.</p> <p>GS1: The graduates are able to develop logical, critical, systematic, and creative thinking through scientific research; develop scientific concepts and present the results based on scientific rules, procedures, and ethics in the form of theses and scientific publications.</p> <p>SK2: The graduates are able to solve problems related to biological resources through an inter- and / or multidisciplinary approaches beneficial to society and scientific community.</p>
Course Learning Outcome	CLO1: Students have knowledge of the body's defense system, able to explain the differences in the humoral and cellular immune systems as well as the innate and adaptive immune systems.



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	<p>CLO2: Students are able to explain the mechanism and regulation of action of an immunological process through cellular and molecular components.</p> <p>CLO3: Students have the ability to make a report and analyze the results of observations and activities in the laboratory.</p>
Course Description	<p>Cellular and Molecular Immunobiology gives focus to the components in the immune system, immunological responses to the host and body defense in inflammatory/pathophysiological conditions such as bacterial, parasitic, fungal, and viral infections, as well as cancer, immunodeficiency and autoimmune diseases through both cellular and molecular mechanisms, and also studied the manipulation of the immune response which is the basis of the body's immune reaction after vaccine administration and methods that are often used in immunological research.</p>
Assesments	<p>Assignment/Quiz, Midterm exam, Final Exam, Laboratory activity</p>
Study Media	<p>Textbook, journal, PPT</p>
Literature	<ol style="list-style-type: none">1. Cellular and Molecular Immunology, 8th edition, 2015. Abul Abbas, Andrew Lichtman and Shiv Pillai, Elsevier.2. Basic Immunology. Edisi ke 5. 2016. Abul K Abbas, Andrew H. Lichtman dan Shiv Pillai. Elsevier.3. Immunobiology. 5th edition. 2001. Charles A Janeway, Jr, Paul Travers, Mark Walport, and Mark J Shlomchik. Garland Science, New York. ISBN-10: 0-8153-3642-X.