THE MODULE HANDBOOK
FACULTY OF BIOLOGY

Immunobiology

Module code	BID 30803IUP
Module level	3rd year of Undergraduate Program in Biology
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	Odd
Module coordinator(s)	Dr.bio.hom. Nastiti Wijayanti, M.Si.
Lecture(s)	1. Dr.bio.hom. Nastiti Wijayanti, M.Si.
Language	English
Classification within the Curriculum	Elective course
Teaching format/class hours per week during the semester	This course is organized into one class and planned to have 14 teaching weeks and 2 weeks of examination.
Workload	Estimated working hour: 10,5 hours/week.
Credit points	2-1 credits
Requirements	Animal Physiology (BIB 20801IUP)
Learning goals/ competencies	**1. Attitude and value** a. Devoted to God Almighty. b. Appreciating service on previous contributor (in researcher) in Immunobiology. c. Appreciating the role of experimental animals as model in Immunobiology. d. Recognizing the importance of science Immunobiology. **2. Capacity of Work** a. Devoted to God Almighty. b. Appreciating service on previous contributor (in researcher) in Immunobiology. c. Appreciating the role of experimental animals as model in Immunobiology. d. Recognizing the importance of science Immunobiology. **3. Competency** a. Able to apply the principles of physics, chemistry, biochemistry, cell biology and animal structures to solve problems in Immunobiology.

	b. Have a basic theory and instrumentation capabilities, furthermore apply the scientific method to conduct research in Immunobiology. c. Conduct a holistic approach to solve problems and make plans, benefits, risks, safety, trust and environmental impact. d. Able to discuss actively and effectively. **4. Authority and Responsibility** a. Capable to communicate and apply the science of endocrinology for Animal and human welfare b. Being able to anticipate problems and find a way of solving problems related to Immunobiology. c. Responsible for professional and scientific ethics to the impact of scientific advances in the field of biology to society.
Content	This course started with learning the basic concepts of immunology that involves understanding the antigen, immunogen, allergen, and pathogens. It continued the basic principles the immune reaction, defence or tolerate the self and against nonself as a defence mechanism (immune response based on antigen : antibody reaction), how the immune system recognize and distinguish between self and nonself, and the consequences in case of failure of its recognition (autoimmune). This course also discusses the development of the immune system in non-mammal vertebrates and invertebrates. This suggests that the immune system has evolved and development.
Study/exam achievements	1. Theory: 75% a. Midterm: 35% b. Final examination: 40% c. Quiz: 10% d. Assignment: 15% 2. Laboratory work: 25%
Forms of media	White board, computer, LCD
Literature	1. Baratawidjaja, K.G. 2006. Imunologi dasar. Edisi 7. Balai Penerbit FKUI. Jakarta. 2. Davies, H. 1997. Introductory immunobiology. 1st edition. Chapman & Hall. London. 3. Eales, L.J. 1999. Immunology for life scientists, a basic introduction, a student-centred learning approach. 1st edition. John Wiley & Sons, Ltd. Chichester, UK. 4. Garvey, J.S., N.E. Cremer, D.H. Sussdorf. 1997. Methods in immunology, a laboratory text for instruction and research. 3rd edition. W.A. Benjamin, Inc. Reading, Massachusetts. 5. Janeway, C.A., P.Travers, M. Walport, M. Shlomchik. 2001. Immunobiology, the immune system in health

	and disease. 5th edition. Garland Publishing. New York.