

Module Handbook

Modul Name	Immunology
Modul Level	6 (Bachelor)
Abbreviation, if applicable	BII101
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	5/3
Module coordinator(s)	Dr. Suwarno, drh., MSi.
Lecturer(s)	1. Dr. Suwarno, drh., MSi. (PJKM) 2. Prof. Dr. Rahaju Ernawati, drh., M.Sc. 3. Prof. Dr. Fedik A. Rantam, drh. 4. Adi Prijo Rahardjo, drh., M.Si. 5. Dr. Jola Rahmahani, M.Kes, drh.
Language	Bahasa Indonesia and English
Classification within the curriculum	Compulsory/ elective course
Teaching format/class hours per week during the semester	2 class hour lecture (2 x 170 minutes lecture) x 14 weeks
Workload per semester	340 minutes lecture is divided into 100 minutes face to face interaction, 100 minutes structured activities and 140 minutes independent study
Credit points	2 (~3.02 ECTS)
Requirements	Bacteriology and mycology; Virology; Parasitology
Learning goals/competencies	Students are able to explain the mechanism of immune reactions, both for self and non-self objects, so that in the field they can take preventive measures by immunoprophylaxis and immunotherapy properly and correctly.
Content	This course discusses the history of immunology development, cell origin and type of immune system; I and organs in the immune system; antigen structure and antibodies and antigen interactions antibody; cellular basis and regulation of humoral immune response, cellular immune response and differentiation of immune cells; system complement; hypersensitivity reaction; MHC and APC inside immunology transplant; immunity to infectious diseases; immunoprophylaxis and immunotherapy; factors that affect the immune response; immunodeficiency and autoimmune

	diseases; cancer immunology; and measurement of immune response.
Softskills attribute	Oral communication (discussion), discipline and ethics.
Study/exam achievements	Final exams (33.3%), midterm exam (22.2%), assignment (16.7%) and quizzes (16.7%), soft skill (11.1%).
Forms of media	Computer, computer projector, white board, AULA (Airlangga University e-Learning Application)
Literatures	<ol style="list-style-type: none"> 1. Hafez, E.S.E., 2000. Reproduction in Farm Animals, 7th Edition. Lea and Febiger Philadelphia 2. Ismudiono, P. Srianto, H. Anwar, S.P. Madyawati, A.Samikdan E. Safitri, 2010. Buku Ajar Fisiologi Reproduksi pada Ternak, Airlangga University Press, Surabaya 3. Hardijanto, S. Susilowati, T. Hernawati, T. Sardjitodan T.W. Suprayogi. 2010. Buku Ajar Inseminasi Buatan. Airlangga University Press, Surabaya. 4. Hardijanto, S. Susilowati, T. Hernawati, T. Sardjitodan T.W. Suprayogi. 2010. Buku Ajar Inseminasi Buatan. Airlangga University Press, Surabaya. 5. Partodihardjo, 1992. Ilmu Reproduksi Hewan. Penerbit Mutiara, Jakarta. 6. Hariadi, M., Hardjopranojoto, Wurlina, H.A.Hermadi, Rimayanti, B.Utomo, I.N.Triana, dan H.Ratnani, 2013. Buku Ajar Ilmu Kemajiran Pada Ternak. Airlangga University Press, Surabaya.
Notes	