

Immunology

Module name		<i>Immunology</i>				
Module level		4 th year of Bachelor program				
Abbreviation, if applicable		-				
Sub-heading, if applicable		-				
Courses included in the module, if applicable		BI4103 Immunology				
Semester/term		7 th Semester				
Module coordinator(s)		Dr. Marselina Irasonia Tan				
Lecturer(s)		Dr. Marselina Irasonia Tan				
Language		Indonesian				
Classification within the Curriculum		Elective courses for Bachelor Program in Biology				
Teaching format/ class hours per week during the semester		Lecture (face to face teaching): 2 x 1 hour x 12 weeks Assignment: Student class presentation/group: 2 hours x 2 weeks Quizzes: 15 minutes x 8 weeks				
Workload	Total Workload	96 hours; 2 CU				
		Face to face teaching	Structured Activities	Independent study	Exam	Total
	Lecture	28	32	32	4	96
Credit points		<i>Immunology (2 Credits)</i>				
Requirements		-				
Content		<ol style="list-style-type: none"> 1. Study about immunity: introduction: cell and tissue in immune system; 2. innate immunity; 3. antibody; 4. MHC/TCR, antigen presentation; 5. development of B lymphocyte; 6. development of T lymphocyte; 7. cell interaction between T cell and APC; 8. T helper cell; 9. interaction between B cell and APC, cytokine; 10. cytotoxic T cell and NK cell; 11. B cell response and memory; 12. tolerance and autoimmune; 13. transplantation and allergy. 				
Learning goals/competencies		Students are able: - understand immune system - understand mode of action of immune system - analyze immune system defect				
Study/exam achievements		Midterm exam	Final exam	Presentation, literature study, and discussion	Total	
		35%	30%	30%	100%	
Forms of media		Classical teaching tools:		White board, power point presentation		
		Digital teaching tools:		Video/CD, Website		
Literature		<ol style="list-style-type: none"> 1. Murphy, K. 2012. Janeway's Immunology. 8th ed. Garland Science 2. Delves, P.J., Martin, S.J., Burton, D.R, IM Roitt. 2012. Roitt's Essential Immunology. 12th Ed. John Wiley 3. Abbas, A.K., Lichtman, A.H.H., S. Pillai. 2011. Cellular and Molecular Immunology. 7th ed. Saunders 				