

## Genomics and Proteomics

Module name		<i>Genomics and Proteomics</i>				
Module level		4 <sup>th</sup> year of Bachelor program				
Abbreviation, if applicable		-				
Sub-heading, if applicable		-				
Courses included in the module, if applicable		BI4211 Genomics and Proteomics				
Semester/term		8 <sup>th</sup> Semester				
Module coordinator(s)		Dr. Fenny Martha Dwivany				
Lecturer(s)		Dr. Fenny Martha Dwivany				
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>Genomics and Proteomics (2 Credits)</i>				
Requirements		-				
Content		<ul style="list-style-type: none"> <li>- Basic concept, analysis and application of genomics</li> <li>- Transcriptomics and proteomics</li> <li>- Genome structure and organization</li> <li>- Genome mapping</li> <li>- Reading genome sequence</li> <li>- Comparative genomics</li> <li>- Mutagenesis</li> <li>- Gene expression and protein analysis</li> <li>- Genomics application.</li> </ul>				
Learning goals/competencies		Students are able to : <ul style="list-style-type: none"> <li>- explain basic concept of genomic, transcriptomic and proteomic</li> <li>- explain technology for genomic, transcriptomic and proteomic analysis and application</li> <li>- explain the consequence of omic knowledge</li> </ul>				
Study/exam achievements		Midterm exam	Final exam	Presentation	Attendance and Participation	Total
		30%	30%	30%	10%	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"> <li>1. Primrose, S.B., dan R.M.Twyman. "Principles of Gene Manipulation and Genomics". Blackwell Publishing; 7th edition (2006).</li> <li>2. Campbell, A. M. and Heyer, L. J. (2006) Discovering Genomics, Proteomics, and Bioinformatics. 2nd ed. Benjamin Cummings.</li> </ol>				