Cell and Molecular Biology II

Module name		Cell and Molecular Biology II				
Module level		Third year of Bachelor program				
Abbreviation, if applicable						
Sub-heading, if applicable						
Courses included in the module, if applicable		BI-3103 Cell and Molecular Biology II				
Semester/term		1st Semester				
Module coordinator(s)		Dr. Fenny M. Dwivany				
Lecturer(s)		Dr. Maelita R. Moeis & Dr. Sony Suhandono				
Language		Indonesian				
Classification within the Curriculum		Compulsory courses for Bachelor Program in Biology				
Teaching format/ class hours per week during the semester		*2 parallel classes consists of 40 students / class:* 2) 1st-12th week Lecture (Face to face lecture & student presentation): 2 hr for 12 weeks 2) 13th-14th week Student class presentation/group (4-5 students/group):2 hr for 2 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		Cell and Molecular Biology II (3 CU)				
Requirements		Genetics				
Content		1. Introduction; 2. DNA & RNA manipulation & protein analysis; 3. DNA replication; 4. DNA repair; 5. genetic recombination; 6. From DNA to RNA; From RNA to protein; 7. Control of Gene Expression in eukaryotes; 8. Genome evolution				
Learning goals/ competencies		*After completion of this module students are expected to be able to:* Knowledge : • describe structure & function of macromolecule in the cells. • describe process & control of gene expression Skill • perform & analyze of structure and function of macromolecule in the cells as well asprocess & control of gene expression • Search for and present relevant information from scientific publications dealing with cell & molecular biology Competences : • Interpret and apply knowledge in the structure and function of macromolecule in the cell as well as process & control of gene expression				
Study/exam achieve		*Lecture (100%)*				
		Midterm exam	*Quiz*	*Final exam*	*Assignment/ Presentation*	*Total*
	Lecture	*35%*	*20%*	*35%*	*10%*	*100%*
Forms of media		*Classical teaching tools:*		*white board/ chalk and talk, power point, film, animation*		
		Integrated teaching tools:		-		
		Digital teaching tools:		-		
		Problem based teaching tools:		*Journal*		
Literature		*1. Alberts B, Bray D,Hopkin K, Johnson A, Lewis , Raff M, Roberts K and Walter P. 2009.*				

	Essential Cell Biology. 3rd ed. Garland Science *2. Karp G. 2013. Cell and Molecular Biology: Concepts and Experiment. John Wiley & Sons, Inc. 7th ed*