MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE :** **D10D-2011**
Module designation	Biophysics and Instrument	
Semester in which the module is taught	4	
Persons responsible for the module	1. Prof. Dr. Eng I Made Joni M.Sc. 2. Dr. Ayi Bahtiar M.Si 3. Norman Syakir M.Si 4. Ferry Faizal PhD	
Medium of instruction	Indonesian and English	
Relation to curriculum	Compulsory course	
Teaching methods	Lectures and discussions	
Workload	Total workload : 5440 minute = 90.67 hour Lecture and discussion : 2 x 50 minute x 16 week = 1600 minute = 26.67 hour Exercises : 2 x 60 minute x 16 week = 1920 minute = 32 hour Self-study : 2 x 60 minute x 16 week = 1920 minute = 32 hour	
Credit points	2.00 (3.62 ECTS)	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	1. Students are able to understand the basic concepts of applied Physics in Biology. 2. Students are able to apply the basic concepts of measuring simple physical quantities in Biological systems. 3. Students are able to analyze several measurement data from biological systems. 4. Students are able to know the latest topics in the interdisciplinary study of Physiology and Biophysics 5. Students are able to design and simulate selected simple physical models and their applications in Biology, in groups	
Contents	This course presents selected Physics concepts that are widely applied to solve physical problems in Biology, for 2nd year Biology students who are already familiar with basic physics concepts. This course is expected to open future insight into the importance of interdisciplinary studies and collaborating with other fields in the form of contributing to understanding and accepting contributions from other scientific disciplines.	
Examination forms	Quiz, Midterm exam, Assignment, and Final exam	
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (20%), midterm exam (30%), assignment (20%), and final exam (30%)	
Reading lists	1. Biophysics, an Introduction, Rodney Cotterill, John Willey and Son, 2002 2. Fundamental of Biophysics, Andrey B. Rubin, Scrivener Publishing, 2014 3. An Introduction to Biomechanics, Jay D. Humphrey and Sherry L. O'Rourke Second Edition, Springer, 2015	