MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-3007**
Module designation	Animal Development	
Semester in which the module is taught	3	
Persons responsible for the module	1. Dr. Kartiawati Alipin 2. Dr. Desak Made Malini 3. Dr. Yasmi P. Kuntana 4. Madihah, M.Si	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory course	
Teaching methods	Lecture and discussion	
Workload	Total workload : 5440 minutes = 90.67 hours Lecture and discussion : 2 x 50 minutes x 16 weeks = 1600 minutes = 13.33 hours Exercises : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours Self-study : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours	
Credit points	2.00 (3.62 ECTS)	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	1. Explain the process of growth and development of gamete cells so that they are able to fertilize, be fertilized, or fertilize. 2. Describe the process of embryo growth and development. From the formation of the zygote to the formation of the three layers of the institution 3. Explain the process of growth and development of advanced embryos (from the neurulation phase to the development of each of the 3 layers of the institution). 4. Explain embryonic adaptation, normal development, and abnormalities.	
Contents	This course studies the process of embryonic growth and development until an embryo is formed that resembles an adult individual which involves the processes of growth, morphogenesis, and differentiation. Gametogenesis, fertilization process, cleavage, blastulation, gastrulation & neurulation, early and advanced organogenesis (ectoderm, mesoderm, endoderm derivatives), embryo adaptation, and normal development and developmental abnormalities are studied.	
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. Gilbert, S.F. 2000. Developmental Biology, 6th ed. Sunderland: Sinauer Associates, Inc. 2. Johnson, M. & B. Everitt. 1988. Essential Reproduction, 3rd ed. Oxford: Blackwell Scientific Publications 3. Sadler, T.W. 1990. Langmans medical Embriology. 6 th ed. Baltimore Mariland: Williams & Wilkins 4. Carlson, B. M. 1996. Patten's foundations of embryology, 6th ed. New York: McGraw-Hill, Inc 5. Turner, C.D. & Joseph T.B. 1976. Endokrinologi Umum. Airlangga University Press.	