	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **MASTER OF SCIENCE IN BIOLOGY**	**COURSE CODE: D20D1202**
Module designation	**Special Topic: Biosystems and Molecular Biology**	
Semester(s) in which themodule is taught	1	
Person(s) responsible for the module	1. Annisa, M.Si., Ph.D 2. Prof. Wawan Hermawan 3. Dr. Tia Setiawati 4. Dr. Desak Made Malini 5. Dr. Nurzaman 6. Dr. Sri Rejeki R	
Medium of instruction	English and Indonesian	
Relation to curriculum	Compulsory Master of Science in Biology	
Teaching methods	Lecture, Discussion, Cooperative Learning and Inquiry Learning	
Workload	Total workload: 8160 minutes (136 hours) **CLASS** Lecture, Discussion, Cooperative Learning and Inquiry Learning: 3 x 50'x 16 weeks = 2400 minutes (40 hours) Exercise : 3 x 60'x 16 weeks = 2880 minutes (48 hours) Private study : 3 x 60'x 16 weeks = 2880 minutes (48 hours)	
Credit points	3.00 SKS (5.43 ECTS)	

Required and recommended prerequisites for joining the module	-
Module objectives/intend edlearning outcomes	1. After completing this course, the students will be able to acquire, understand, and analyze various knowledge in the fields of taxonomy, biosystems, and molecular biology. 2. After completing this course, the students will have knowledge, understanding, and the ability to examine the relationship between the underlying sciences of taxonomy, biosystems, and molecular biology, and the applications and journals that utilize this knowledge in various aspects of taxonomy, biosystems, and molecular biology.
Contents	The Special Topic course on Biosystems and Molecular Biology is a mandatory course for Master's in Biology students specializing in biosystems and molecular biology. This course provides an introduction to the fundamental principles and research related to the fields of taxonomy, biosystems, and molecular biology. It aims to give an overview of the foundational knowledge and its application in scientific publications. Master's students are expected to gain an understanding of the relationship between fundamental scientific principles and advancements in scientific research that will underpin their own research projects, as well as analyze the connections between theory, laboratory work, and practical applications.
Examination forms	Essay and written examination
Study and examination requirements	Minimum attendance at lectures is 80%. Final score is evaluated based on assignment and group case study reports (20%), Assignment (20%), mid semester exam (30%), and end semester exam (30%).
Reading lists	1. Gerald Karp, Janet Iwasa, Wallace Marshall. 2016. Cell and Molecular Biology: Concepts and Experiments. 8th edition. John Wiley & Sons, Inc. 2. Aly Farag El Sheikha, Robert Levin Jianping Xu. 2018. Molecular Techniques in Food Biology. John Wiley and Sons. Oxford. 3. William J. Thieman and Michael A. Palladino. 2011. An Introduction to Molecular Biotechnology Fundamentals, Methods, and Applications, 2nd Edition. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim