Module Handbook

Modul Name	Spermatopytae reproduction
Modul Level	Bachelor
Sub-heading, if applicable:	BIB207
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester	Odd (7^{th} semester)
Module Coordinator(s)	Prof. Hery Purnobasuki, Ph.D
Lecturer(s)	Prof. Hery Purnobasuki, Ph.D
Languange	Bahasa Indonesia
Classification Within The Curriculum	~~Compulsory Course~~ / Elective Studies
Teaching format/ class hours per week during semester	300 minutes/ week
Workload per semester	100 min lecture + 100 min structural assignment + 100 min self-assignment x 13 weeks; total 3900 min = 65 hours 65/25 = 2.6 ECTS
Credit point	2
Requirement	Plant Morphology and plant anatomy
Learning goals/competencies	**General competence (knowledge):** Students are able to explain the mechanism of reproduction in seed plants, explaining the factors that affect the reproduction of seed plants, and analyze issues related to reproductive seed plants correctly. **Specific competence :** 1. Able to know general description of spermatopytae reproduction 2. Able to understand te basic concept and terminology of speratophytae reproduction

	3. Able to understand plant propagation correctly 4. Able to understand and compare between male and female reproduction systems correctly 5. Able to understand the spermatophytae sexual reproduction correctly 6. Able to understand the spermatophytae asexual reproduction 7. Able to understand the plant polynesia system correctly 8. Able to understand seed and fruit development process correctly 9. Able to understand conifer reproduction process correctly 10. Able to understand the mechanism of seed spread and the factrs that affect it correctly 11. Able to nderstand seed germination process crrecty 12. Able to understand the process of micropropagation and tissue clture correctly 13. Able to understand the implementation of biotechnology in plant correctly
Content	Meristem apex and lateral. Formation of flowers (reproductive organs) seed plants. Sexual reproduction (plant life cycle, metagenesis, macro/microsporogenesis and gametogenesis, pollination and fertilization, embryogenesis and germination). Regeneration and vegetative apomixis. Genetic factors, light, hormones, cell communication in reproduction.
Softskill Attribute	Diclipline and argumentation
Study/ exam achievements	Students are considered to be competent and pass if at least get 40 of maximum mark of the final score. Final score: Paper project (10%), quis (10%), mid exam (30%), final exam (40%), and soffskill (10%) Final index is defined as follow: A = 75-100 AB = 70-74,99 B = 65-69,99 BC = 60-64,99 C = 55-59,99 D = 40-54,99

	E = 0-39,99
Forms of Media	LCD
Learning Methods	Class and discussion
Literature	a. Ramawat, K.G, Merilion, Jean-Michel, Shivanna. K.R. 2014. Reproductive biology of plants. CRC Press
Note	-