Module designation	*Biological Agents Management and Technology*
Semester(s) in which the module is taught	*6th*
Person responsible for the module	*Prof. Dr. Ir. Dermiyati, M.Sc*
Language	*Indonesian language*
Relation to curriculum	*Elective*
Teaching methods	*Lectures (100 minutes)* *Practicum sessions (170 minutes)*
Workload (incl. contact hours, self-study hours)	*Contact hours : 14 weeks x 100 minutes* *Structured learning: 14 weeks x 120 minutes* *Independent study: 14 weeks x 120 minutes* *Practicum sessions: 14 weeks x 170 minutes*
Credit points	*3 (2-1) CP or 4.76 (ECTS)* *((14 weeks x 100 minutes) + (14 weeks x 120 minutes) +* *(14 weeks x 120 minutes) + (14 weeks x 170 minutes)) :* *60 minutes/hour* *= 119 hours : 25 study hours/ECTS* *= 4.76 (ECTS)*
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	- *Students are able to apply the basic concepts and principles of cultivation technology and the development of sustainable agriculture technology* - *Students are able to identify, formulate, solve problems, and apply plant science, plant protection, soil science, socio-economic agriculture, and plant production engineering principles that are oriented towards good agricultural practices (GAP)* - *Students are able to plan, design, implement and develop plant production with the latest and environmentally friendly technology creatively and innovatively.*
Content	*The Technology Agent Management Biological course is a 3 (2-1) credit course.This course contains studies on: Definition of Nutrient Biological Agent Management Technology. Technology Utilization of microorganism activity in increasing the supply of elements plant nutrients. Basic understanding and principles of biological nutrient management as well as the technology of utilizing soil microorganisms, enzymes, and compost in increasing the supply of nutrients for plants. The relationship between biotic and abiotic environments in agricultural ecosystems with the sustainability of agricultural production is discussed in detail as well as the impact of intensive agriculture is also studied*
Examination forms	*oral presentation, essay*

Study and examination requirements	*Participants are evaluated based on their performance in class (lectures) (70%) and lab (practicum) (30%).* *Performance in theory (100%):* *Mid Exam (20%)* *Final Exam (20%)* *Assignments (40%)* *Class participation (10%)* *Individual quiz (10%)* *Performance in practicum (100%):* *Practicum exam (30%)* *Pre-test or post-test (10%)* *Experiment reports (60%)*
Reading list	1. *Dermiyati. 2011. Menuju Sistem Pertanian Organik Berkelanjutan (Budidaya Padi Sawah). Universitas Lampung Press.* 2. *Niswati, A. 2014. Pengelolan Hara Nitrogen Secara Biologis.Universitas lampung Press.* 3. *Niswati, A. 2017. Vermicomposting. Aura Press.* 4. *Nugroho, S.G.N. 2013. Biologi dan Kesehatan Tanah. Universitas Lampung Press* 5. *Sieverdings, E. 1991. Vesicular Arbuscular Mycorrhiza Management in Tropical Agrosystem. Technical Cooperation, Federal Republic of Germany, Easchborn.* 6. *Subba Rao, N.S. 1992. Biofertilizer in Agriculture. Oxford & IBH Publishing Co. New Delhi. Bombay.* 7. Yusnaini, S. 2022. Pengelolaan Hara Fosfor Secara Biologis. AURA Press