Module designation	*Agricultural Microbiology*
Semester(s) in which the module is taught	*2nd*
Person responsible for the module	*Dr.Ir. Titik Nur Aeny, M.Sc.*
Language	*Indonesian language*
Relation to curriculum	*Compulsory*
Teaching methods	*Lectures (50 minutes)* *Practicum sessions (170 minutes)*
Workload (incl. contact hours, self-study hours)	*Contact hours : 14 weeks x 50 minutes* *Structured learning: 14 weeks x 60 minutes* *Independent study: 14 weeks x 60 minutes* *Practicum sessions: 14 weeks x 170 minutes*
Credit points	*2 (1-1) CP or 3.17 (ECTS)* *(14 weeks x 50 minutes) + (14 weeks x 60 minutes) +* *(14 weeks x 60 minutes) + (14 weeks x 170 minutes)) : 60 minutes/hour* *= 79,33 hours : 25 study hours/ECTS* *= 3.17 (ECTS)*
Required and recommended prerequisites for joining the module	*- Completion of course: Agricultural Biology*
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).*
Content	*The agricultural microbiology course is a 3 (2-1) credit course. This course contains studies on: history of economybiology; the importance of microbiology in agriculture; space aseptic scope; breeding media; classification of microorganisms; fungi, bacteria, virus, mycoplasma; environmental factors affecting microorganisms; beneficial microorganisms and harmful microorganisms.*
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. Campbell, N.A., J.B. Reece, L.A.Urry, M.L. Cain, S.A. Wasserman, P.V. Minorsky, R.B. Jackson. 2008. Biologi. Eight edition vols 1,2,3 Translated by Damaring Tyas Wulandari. Publisher Erlangga.* *2. Hajoeningtyas, O.D. 2012. Mikrobiologi Pertanian. Publisher Graha Ilmu. Yogyakarta.* *3. Irianto.K.Mikrobiologi. 2006. Mikrobiologi. Publisher Yrama Widya. Surabaya.* *4. Seputro, D. 2002. Mikrobiogi. Publisher Djambatan. Jakarta.* *5. Amaresan N, D Dharumadurai, and O O Babalola. 2022. Agricultural Microbiology Based Entrepreneurship: Making Money from Microbes.*