Module designation	*Tissue Culture Technology*
Semester(s) in which the module is taught	*5th*
Person responsible for the module	*Prof. Dr. Ir. Yusnita, M.Sc*
Language	*Indonesian language*
Relation to curriculum	*Compulsory*
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 basic theory of tissue culture, history discovery of plant tissue culture, how to use tools used in tissue culture, how to make culture medium, preparation and planting of explants invitro, Factors affect the success of plant tissue culture, plant tissue culture in variety of crops.*
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. *Peter J. Davies. 1995. Plant Hormons. Physiology, Biochemistry, and Molecular Biology. Kluwer Academic Publisher. Netherland. 833 pages* 2. *Karl-Hermann Neumann • Ashwani Kumar Jafargholi Imani. 2009. Plant Cell and Tissue Culture - A Tool in Biotechnology. Basic and Application. Springer Germany. 341 pages.* 3. *Sandra, E. 2019. Cara Mudah Memahami dan Menguasai Kultur Jaringan. IPB Press* 4. *Pierik R.L.M. 2012. In Vitro Culture of Higher Plants. Springer Netherlands* 5. *Poerwanto R. 2011. Bioteknologi Dalam Pemuliaan Tanaman. IPB Press*