Module designation	*The Legumes, Tubers, and Root Crops Production*
Semester(s) in which the module is taught	*6th*
Person responsible for the module	*Prof. Dr. Muhammad Kamal, M.Sc.*
Language	*Indonesian language*
Relation to curriculum	*Elective Course*
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 Legumes, Tubers and Root Crops Production course is a 3 (2-1) credit course. Origin and history of distribution; prospects, potential, and programs development; botanical and growing requirements; cultivation techniques and aspects of HPT, postharvest handling.*
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. *Singh, G. 2010. The soybean : botany, production and uses. CABI, Wallingford Oxfordshire OX10 8DE UK. 507p.* 2. *Azooz, M.M. and P. Ahmad. 2015. Legumes under Environmental Stress. Yield, Improvement and Adaptations. John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK. 327 p.* 3. *Lebot, V. 2008. Tropical Root and Tuber Crops: Cassava, Sweet Potato, Yams and Aroids. CABI, Wallingford Oxfordshire OX10 8DE UK* 4. *Hillocks, R.J., J.M. Thresh, and A.C. Belloti. 2002. Cassava: Biology, Production and Utilization. CAB International.* 5. *Navarre, R. and M.J. Pavek. 2014. The potato : botany, production and uses. CABI, Wallingford Oxfordshire OX10 8DE UK. 383p.*