Module designation	*Plant Breeding technology*
Semester (s) in which the module is taught	*4th*
Person responsible for the module	*Dr. Ir. Nyimas Sa'diyah, M.P*
Language	*Indonesian Language*
Relation to curriculum	*Compulsory*
Teaching methods	*Lectures (100 minutes)* *Practicum sessions (170 minutes)*
Workload (inclu. 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	*- Completion of course: Plant Genetics*
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 role of plant breeding for development of agriculture, the basic genetic and genetic diversity, germplasm sources, inheritance of qualitative and quantitative traits and heritability, inner crossing, outer crossing, and heterosis; breeding for resistance against plant pest and disease; type cultivar and hybrid seed production.*

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. *George Acquaah. 2012. Principle of plant genetic and breeding. Second Edition. Wiley BlackWell. Publisher. 740 pages* 2. *Hee-Jong Koh • Suk-Yoon Kwon Michael Thomson. 2015. Current Technologies in Plant Molecular Breeding- A Guide Book of Plant Molecular Breeding for Researchers Springer. 360 pages* 3. *Q.Y. Shu, B.P.Forster, H.Nakagawa. 2011. Plant Mutation Breeding and Biotechnology. International Atomic Energy Agency (IAEA). 595 pages* 4. *Walter R. Fehr. 1993. Principle of Cultivar Development. Theory and Technique. Macmillian Publishing Company. United State of America. 535 pages* 5. *Mangoendidjojo W. 2003. Dasar-Dasar Pemuliaan Tanaman. Penerbit Kanisius. 179 pages*