Module designation	*Water Management Technology*
Semester(s) in which the module is taught	*5th*
Person responsible for the module	*Dr. Ir. Afandi, M.P*
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	*Water Management course is a 3 (2-1) credit course. This course contains studies on introduction to hydrology; rain and its analysis (properties of rain, distribution, time repeat); water balance concept ; open channel hydrology (discharge measurement water, hydrograph analysis, various forms of discharge measuring buildings); the concept of water available land; irrigation on paddy fields; irrigation on land dry (calculation, type, evaluation); other types of irrigation (furrow, drip); various techniques of giving water to plants; drainage and its planning.*
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. *Afandi.2019. Fisika Tanah. Penerbit Aura.* 2. *FAO. Software Cropwat 8.* 3. *Ritzema et al. 1998. Drainage of irrigated land. FAO.* 4. *Gray, N. 2017. Water technology. CRC Press.* 5. *Cech, T. V. 2018. Principles of water resources: history, development, management, and policy. John Wiley & Sons.*