HASANUDDIN UNIVERSITY

Agricultural Engineering
Bachelor Program

2023
MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023

Modeling and Simulation

Elective

Module designation	*Modeling and Simulation*
Semester(s) in which the module is taught	*Elective*
Person responsible for the module	*Dr. Ir. Mahmud Achmad, MP* *Prof. Dr. Ir. Junaedi Muhidong, M.Sc* *Prof. Dr. Ir. Salengke, M.Sc*
Language	*Indonesia*
Relation to curriculum	*Elective*
Teaching methods	*Lecture*
Workload (incl. contact hours, self-study hours)	*(Estimated) Total workload:* *2 SKS x 1.7 = 3.4 ECTS = 91.8 hours* • *Lecture = 23.3 hours* • *Excercise = 28 hours* • *Sel study = 28 hours* • *Exam = 4 hours (MID term and final)* • *Exam preparation = 8.5 hours*
Credit points	*2 SKS = 3.4 ECTS*
Required and recommended prerequisites for joining the module	*Engineering Drawing* *Engineering Drawing Practicum* *Engineering Design* *Engineering Mathematics I* *Engineering Mathematics II*
Module objectives/intended learning outcomes	*ILO3: apply knowledge of mathematics, sciences, and engineering principles in agricultural fields; (Knowledge 1)* *ILO4: use quantitative analysis, information technology and critical thinking in agricultural engineering profession; (Knowledge 1)*
Content	• *Student will be able to demonstrate general understanding of Mathematical modeling and Simulation related to Agricultural Field.* • *Students will have skill to draw a concept of mathematical modeling* • *Students will have skill to simulate a mathematical model..*
Examination forms	*Writing exam*
Study and examination requirements	*Attendence above 80%*
Reading list	• ***Hangos, K. amd I. Cameron, 2001. Process Modelling and Model Analysis. Academic Press, California***