HASANUDDIN UNIVERSITY

Agricultural Engineering
Bachelor Program

2023
MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023

Farm Electrification

Semester 4

Module designation	*Farm Electrification*
Semester(s) in which the module is taught	*IV*
Person responsible for the module	*• Dr. Ir. Abdul Waris, MT* *• Dr. Abdul Azis, STP., M.Si* *• Muhammad Tahir Sapsal, STP., M.Si*
Language	*Indonesia*
Relation to curriculum	*Compulsory*
Teaching methods	*Lecture*
Workload (incl. contact hours, self-study hours)	*(Estimated) Total workload:* *2 SKS = 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	*Physics*
Module objectives/intended learning outcomes	*ILO 3: Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields; (Knowledge 1)* *ILO 5: Use techniques, skills, and modern tools necessary for agricultural engineering practices; (Skill 1)*
Content	*This course introduces students to electrical codes and electrical codes and rules and discusses the transmission of low voltage (220 V and 380 V), AC and DC sources, DC, AC 1 and 3 phase circuits, testing procedures, methods of calculation of electrical power demand and power correction factor power, electrical installation methods, load distribution (electric heating, electric motors, lighting). , electric motors, lighting). This course includes laboratory practice for AC 1 and 3 phases for electric motors, lighting and lamps.*
Examination forms	*Writing exam*
Study and examination requirements	*Attendance above 80%*
Reading list	*1. Bovay, H.E 1981. Handbook of Mechanical and Electrical Systems for Buildings. McGraw-Hill Book Company* *2. Lister, E.C. 1980. Electric Circuits and Machine. McGraw-Hill Book Company.* *3. Mullin, R.C and R.L. Smith, 1992. Electrical Wiring Commercial. Sixth Edition. Delmar Publishing Inc.* *4. Seidman, A.H., H. Mahrous, and T.G. Hicks 1983. Handbook of Electric Power Calcularions. McGraw- Hill Book Company.* *5. Turner, W.C. 1982. Energy Management Handbook. Jonh Wiley & Son. New York.*