HASANUDDIN UNIVERSITY

Agricultural Engineering
Bachelor Program

# 2023
# MODULE DESCRIPTION


BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023

# Farm Power & Machinery

## Semester 4

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| Module designation | *Farm Power & Machinery* |
| Semester(s) in which the module is taught | *IV* |
| Person responsible for the module | *Dr. Iqbal, STP., M.Si*<br>*Dr. Abdul Azis, STP., M.Si*<br>*Muhammad Tahir Sapsal, STP., M.Si* |
| Language | *Indonesia* |
| Relation to curriculum | *Compulsory* |
| Teaching methods | *lecture, Excercise.* |
| Workload (incl. contact hours, self-study hours) | *(Estimated) Total workload:*<br>*2 SKS = 3.4 ECTS = 91.8 hours*<br>*> Lecture = 23.3 hours*<br>*> Excercise = 28 hours*<br>*> Sel study = 28 hours*<br>*> Exam = 4 hours (MID term and final)*<br>*> Exam preparation = 8.5 hours* |
| Credit points | *1 SKS = 1.7 ECTS* |
| Required and recommended prerequisites for joining the module | |
| Module objectives/intended learning outcomes | *ILO 5: Use techniques, skills, and modern tools necessary for agricultural engineering practices; (Skill 1)*<br>*ILO 6: Design simple equipment, components, or processes needed in agricultural engineering operations; (Skill 2)*<br>*ILO 8: Demonstrate capacity in operating agricultural engineering related business either as producer or service provider; (Competence 2)* |
| Content | *This course is designed to enable students to understand the use of power in agriculture, types of motors and engines, and agricultural tools and machinery. The course covers the working principles of internal combustion and electric motors, electrical systems, cooling and lubrication systems, ignition systems, power transmission, and an introduction to 2-wheel and 4-wheel tractors* |
| Examination forms | *Writing* |
| Study and examination requirements | *Attendance above 80%* |
| Reading list | *Principles of Farm Machinery; Tractors and Their Power Unit* |