HASANUDDIN UNIVERSITY

Agricultural Engineering
Bachelor Program

2023
MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023

Agricultural Product Processing Engineering II

Elective

Module designation	*Agricultural Product Processing Engineering II*
Semester(s) in which the module is taught	*Elective*
Person responsible for the module	• *Dr. Ir. Supratomo, DEA* • *Prof. Dr. Ir. Salengke, M.Sc* • *Prof. Dr. Ir. Mursalim*
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	*Food Processing Engineering* *Heat Transfer and Thermodynamics*
Module objectives/intended learning outcomes	*ILO 3: Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields; (Knowledge 1)* *ILO 4: Use quantitative analysis, information technology and critical thinking in agricultural engineering profession; (Knowledge 2)* *ILO 5: Use techniques, skills, and modern tools necessary for agricultural engineering practices; (Skill 1)* *ILO 7: Manage and utilise agricultural resources effectively, efficiently, and sustainably; (Competence 1)*
Content	*This course covers the principles of mechanical engineering, namely statics and dynamics, which form the foundation for designing agricultural tools and machinery. This course covers topics such as: dimensions and units, the International System of Units, rigid body statics, equilibrium concepts, center of mass and centroid, moment of inertia, kinematics of linear motion, dynamic principles, momentum and impulse, work and energy, kinematics of curved motion, projectile motion, and rotational kinematics.*
Examination forms	*Writing*
Study and examination requirements	*Attendance above 80%*
Reading list	• *Tmoshenko, S and D.H. Young. Engineering Mechanics. Erlangga ,1990*

	• *Ferdinand P. B; E.R. Jahuston and Liong, T.H. Mechanics for Engineers: Statics. 1976*