



**HASANUDDIN  
UNIVERSITY**

**2023**

# MODULE DESCRIPTION

**BACHELOR PROGRAM  
AGRICULTURAL ENGINEERING  
FACULTY OF AGRICULTURE  
HASANUDDIN UNIVERSITY  
2023**



# Engineering Design

## Semester 4

Module designation	<i>Engineering Design</i>
Semester(s) in which the module is taught	<i>IV</i>
Person responsible for the module	<ul style="list-style-type: none"> <li>• <i>Dr. Ir. Abdul Waris, MT</i></li> <li>• <i>Dr. Iqbal, STP., M.Si</i></li> </ul>
Language	<i>Indonesia</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>lecture</i>
Workload (incl. contact hours, self-study hours)	<ul style="list-style-type: none"> <li>• <i>2 SKS x 1.7 = 3.4 ECTS = 91.8 hours</i></li> <li>• <i>Lecture = 23.3 hours</i></li> <li>• <i>Excercise = 28 hours</i></li> <li>• <i>Sel study = 28 hours</i></li> <li>• <i>Exam = 4 hours (MID term and final)</i></li> <li>• <i>Exam preparation = 8.5 hours</i></li> </ul>
Credit points	<i>2 SKS = 3.4 ECTS</i>
Required and recommended prerequisites for joining the module	<ul style="list-style-type: none"> <li>• <i>Engineering Mechanics</i></li> <li>• <i>Engineering Materials Knowledge</i></li> <li>• <i>Engineering Drawing</i></li> <li>• <i>Engineering Drawing Practicum</i></li> </ul>
Module objectives/intended learning outcomes	<ul style="list-style-type: none"> <li>• <i>ELO 3: Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields.</i></li> <li>• <i>ELO 4: Use quantitative analysis, information technology and critical thinking in agricultural engineering profession</i></li> <li>• <i>ELO 5: Use techniques, skills, and modem tools necessary for agricultural engineering practices.</i></li> </ul>
Content	<i>The course is designed to provide students with knowledge and skills in engineering design which they can apply in designing simple agricultural tools and equipment. This course discusses concepts, principles and procedures in engineering design and basic calculations for dimensions of machine element.</i>
Examination forms	<i>Writing and essay, etc.</i>
Study and examination requirements	<i>Attendance Above 80%</i>
Reading list	<i>Harsokoesoemo, H.D., 2004, Pengantar PerancanganTeknik (Perancangan Produk), Bandung, ITB press</i>