



2023 MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023



Heat Transfer

Semester 3

Module designation	<i>Heat Transfer</i>
Semester(s) in which the module is taught	<i>III</i>
Person responsible for the module	<i>Prof. Dr. Ir. Junaedi Muhidong, M.Sc. Prof. Dr. Ir. Salengke, M.Sc Dr.rer.nat. Olly Sanny Hutabarat, STP.,M.Si.</i>
Language	<i>Indonesia</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>Lecture and in-depth discussion</i>
Workload (incl. contact hours, self-study hours)	<i>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</i>
Credit points	<i>1 SKS = 1.7 ECTS</i>
Required and recommended prerequisites for joining the module	<i>Engineering Properties of Materials</i>
Module objectives/intended learning outcomes	<i>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)</i>
Content	<i>This course will provide student with knowledge on the modes of heat transfer and skills on solving heat related engineering problems. The topics covered in this course include modes of heat transfer, conduction in onedimension, convective heat transfer, natural and forced convective heat transfer, radiation heat transfer, and heat exchangers.</i>
Examination forms	<i>Writing</i>
Study and examination requirements	<i>Attendance above 80%</i>
Reading list	<i>1. Çengel, Y. A. 1998. Heat Transfer: A Practical Approach. McGraw Hill, Inc. Hightstown, N.J. 2. Holman, J. P. 2010. Heat Transfer 10th ed. McGraw-Hill. New York</i>