MODULE HANDBOOK

Course:	**Thermodynamics**
Module Level:	Undergraduate
Code:	FIT204
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	3rd / Second Year
Module Coordinator:	Febdian Rusydi, Ph.D.
Lecturer(s):	Prof. Moh. Yasin; Supadi M.Si. and Febdian Rusydi Ph.D
Language:	Bahasa Indonesia
Classification within the Curriculum:	Compulsory Course / ~~Elective Course~~
Teaching format / class hours per week during semester:	3 hours of lectures (50 min / hour)
Workload:	3 hours of lectures, 3 hours of structural activities, 3 hours of individual study, 13 weeks per semester, and total of 117 hours per semester ~ 3.9 ECTS*
Credit Points:	3
Requirement(s):	(FID202) Basic Physics II and (MAA102) Calculus II
Learning Goals/Competencies:	**General Competence (Knowledge) :** Students are able to utilize the four thermodynamics laws to understand various physical properties of equilibrium systems and the relation between them. **Specific Competence:** 1. Students understand about the perfect and real gases. 2. Students are able to explain zeroth law as well as its nature phenomenons. 3. Students are able to describe the concept of Helmholtz and Gibbs energy.
Contents:	In principle, this course discuss about the perfect and real gases, the zeroth law (thermometer), the first law (energy conservation), state functions, the second law (entropy), the third law (entropy), the concept of Helmholtz and Gibbs energy.
Soft Skill Attributes:	Effort and ethic.
Study/Exam Achievements:	Passing grade is D (equivalent of score 40.0 of 100.0). The final score is determined by 25% assignment + 35% midterm test + 40% final exam. Score to grade conversion: A : 75 - 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 - 39.99
Forms of Media:	Whiteboard and projector

Learning Methods:	Lecturing, homework, tutorial
Literature(s):	Peter Atkins and Julio De Paula, 2010. *Physical Chemistry* 9th edition, Oxford University Press.
Notes:	*Total ECTS = {(total hours workload × 50 min) / 25 hours Each ECTS is equals with 25 hours.