

## MODULE HANDBOOK

Course:	<b>Electromagnetic Fields</b>
Module Level:	Undergraduate
Code:	FIT307
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	7 <sup>th</sup> / Fourth Year
Module Coordinator:	Prof. Moh. Yasin
Lecturer(s):	Prof. Moh. Yasin, and Febdian Rusydi Ph.D.
Language:	Bahasa Indonesia
Classification within the curriculum:	<del>Compulsory Course</del> / Elective Course
Teaching format / class hours per week during semester:	2 hours of lectures (50 min / hour)
Workload:	2 hours of lectures, 2 hours of structural activities, 2 hours of individual study, 13 weeks per semester, and total of 78 hours per semester ~ 2.6 ECTS*
Credit Points:	2
Requirement(s):	(FIT301) Quantum Physics
Learning Goals/Competencies:	Knowledge:  Competencies:
Contents:	Potential calculation includes Laplace equation, Poisson equation, Green function, shadow method, separation of variables, multi poles expansion, Maxwell equations in materials, formulation of potential electrodynamics, Coulomb gauge, Lorentz gauge, transformations gauge, the wave Electromagnetic in the medium, the reflection and transmission of electromagnetic waves, dispersion, waveguides, TE diversity, diversity TM, various TEM, fields and radiation by oscillating source, radiation by the antenna parallel and series.
Soft Skill Attribute:	Effort and ethic.
Study/Exam Achievements:	Students are considered competent and eligible to pass the course upon obtaining at least 50% of maximum score for midterm test, final exam, quizzes and homework.  Final score is calculated as follow: 20 % homework + 10% quizzes + 32.5% midterm test + 32.5% final exam + 5% soft skill.  Final grade is defined as follow : 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 Method:	Lecture, homework and tutorial
Literature(s):	1. David J. Griffith, 1989. <i>Introduction to Electrodynamics</i> , Prentice Hall, 2. Jackson U.J.D. , 1975, <i>Classical Electrodynamics</i> , John Wiley & Sons
Notes:	*Total ECTS = {(total hours workload × 50 min) / 25 hours Each ECTS is equals with 25 hours.