Module Handbook

Module Name	Mathematical Physics I
Modul Level	Undergraduate
Code	18H02120404
Courses (if applicable)	Mathematical Physics 1
Semester	Odd (Ganjil)
Contact Person	Prof. Dr. Wira Bahari Nurdin
Lecturer	Prof. Dr. Wira Bahari Nurdin Prof. Tasrief Surungan, Ph.D.
Language	Bahasa Indonesia and English
Relation to Curriculum	Undergraduate degree program, mandatory, 2nd semester
Type of Teaching, Contact Hours	Lectures, < 60 students, Regular: Monday, 9.40 - 11.20 and Tuesdays, 10.30 - 12.10
Workload	1. Lecture: 4 x 50 = 200 minutes (3.2 hours) / week 2. Exercise and Assignments: 4 x 60 = 240 minutes (4 hours) / week 3. Private study: 4 x 60 = 240 minutes (4 hours) / week
Credit Points	4 Credit Points
Requirements According to the Examination Regulations	A student must have attended at least 75% of the lectures to sit on the final examination.
Mandatory Prerequisites	-
Learning Outcomes and Their Corresponding PLOs	After completing this module, a student is expected to CLO-1 : Students apply series theory and test convergence of series (ILO-6) CLO-2 : Students have solution on vector algebra including vector differential and vector integral (ILO-6) CLO-3 : Students apply Laplace transformation in physical problem (ILO-6) CLO-4 : Students have solution on differential equation problem (ILO-6) CLO-5 : Students have solution on complex numbers problem (ILO-6)
Study and Examination Requirements and Forms of Examination	• Assignment 1, 2, 3, 4 • Mid examination • Final examination
Media Employed	LED, Whiteboard, Learning Management System (SIKOLA)
Assessments and Evaluation	CLO-1: Question in assignment 1 (10 %) CLO-1: Mid examination number 1 (10 %)

	CLO-3: Question in assignment 3 (10 %) CLO-3: Final examination number 1 (10 %) CLO-4: Question in assignment 4 (10 %) CLO-4: Final examination number 2 (10 %) CLO-5: Question in assignment 5 (10 %) CLO-5: Final examination number 3 (10 %)
Reading List	1. George Arfken, 2005, **Mathematical Methods for Physicists**, 6th edition, Elsevier Academic Press 2. Mary L. Boas, 1997, **Mathematical Methods in the Physical Sciences**, 3rd edition, john Wiley & Sons Publishing.