



UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF PHYSICS EDUCATION
PHYSICS STUDY PROGRAM

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Bachelor of Physics

MODULE HANDBOOK

Module name:	Vibration and Wave
Module level, if applicable:	Bachelor Program
Code:	FSK6313
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	2
Module coordinator:	Denny Darmawan, M.Sc.
Lecturer(s):	Denny Darmawan, M.Sc., Dr. Sukardiyono
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	Lecture and Labwork (100 minutes lectures, 120 minutes structured activities and 170 minutes laboratory work per week).
Workload:	Total workload is 136 hours in one semester which consists of 100 minutes of lectures, 120 minutes of structured activities, 120 minutes of individual study and 170 minutes of laboratory work per week for 16 weeks.
Credit points:	3 SKS (4.86 ECTS)
Prerequisites course(s):	-
Course Outcomes	Students graduating from this course will be able to:

	<p>CO1. Analyze the various types of vibrations</p> <p>CO2. Analyze the various types of waves</p> <p>CO3. Analyze the physical phenomena of waves (refraction, reflection, interference, diffraction, dispersion)</p> <p>CO4. Analyzing sound phenomena using wave principles</p>
Content:	This course discusses the basic concepts of vibration and wave, where the students will learn about various types of vibration and wave and their physical phenomena
Study / exam achievements:	<p>The final grade will be weighted as follow:</p> <p>a. Case study : 20%</p> <p>b. Group project : 30%</p> <p>c. Midterm exam: 20%</p> <p>d. Final exam : 30%</p>
Forms of media:	Board, LCD Projector, Laptop/Computer
Reference:	King G.C., 2009, Vibrations and Waves, Wiley

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CO1		✓			✓			
CO2		✓			✓			
CO3		✓			✓			
CO4		✓			✓			