

Module designation	Wave and Optics
Module level, if applicable	Undergraduate
Code, if applicable	PIPAUM6205
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Even/Autumn Term
Person responsible for the module	Yessi Affriyenni, S.Pd, M.Sc
Lecturer	Yessi Affriyenni, S.Pd, M.Sc Prof. Dr. Arif Hidayat, M.Si Dra. Chusnana Insjaf Yogihati, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Compulsory, 4 th semester.
Type of teaching, contact hours	Guided-Inquiry, Presentation, Direct Instruction: 3 x 50 = 150 minutes. Laboratory Work: 1 x 170 = 170 minutes
Workload	1. Class Activities: 3 x 50 = 150 minutes (2.5 hours) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week. 4. Laboratory Work: 1 x 170 minutes = 170 minutes (2.83 hours) per week.
Credit points	4 credit points (~6.35 ECTS cr-eq)
Requirements according to the examination regulations	Minimum of attendance is 80% for a semester
Recommended prerequisites	PIPAUM6202 – Basic Physics II
Module objectives/intended learning outcomes	After completing this module, students are expected to: LO 2: master basic physics knowledge and earth science using the Nature of Science (NOS) along with logical, critical, systematical, and innovative thinking in team collaboration using local potential and information technology development.

Content	This course covers the following three main topics: 1) Mechanics Wave, 2) Optics, and 3) Electromagnetic Wave
Study and examination requirements and forms of examination	Assignment, Quiz, Midterm, Final Examination, Oral Test, Performance
Media employed	Slide Show, Video, White Board, Moodle (SIPEJAR), and Laboratory Instruments
Reading list	<ol style="list-style-type: none"> 1. Giancoli, D.C. 2014. <i>Physics Principle with Applications</i>. Boston: Pearson Education, Inc. 2. Knight, R.D. 2013. <i>Physics for Scientists and Engineers: a Strategic Approach</i>. Boston: Pearson Education, Inc. 3. Serway, R. A. & Jewett, J. W. 2004. <i>Physics for Scientists and Engineers</i>. New York: Thomson Brooks. 4. Webb, R. H. 2005. <i>Elementary Wave Optics</i>. Dover Publications. 5. Young, H. D., Freedman, R. A., Sears, & Zemansky's. 2012. <i>University Physics with Modern Physics</i> (13th edition). San Fransisco: Pearson Education.
Date of last amendment made	May, 2020