

Module Description

Module name	Course Module
Module level, if applicable	Master of Physics Education
Code, if applicable	30063032
Subtitle, if applicable	-
Course, if applicable	Seminar on Thesis Proposal
Semester(s) in which the module istaught	III/IV (Odd or Even Semester)
Person responsiblefor the module	Lecturer of Courses
Lecturer	1. Dr. rer nat. Bambang Heru
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and is offered in the 3 rd semester.
Type of teaching, contact hours	<p>The teaching methods used in this course are:</p> <ul style="list-style-type: none"> - Lectures (i.e., group investigations, small group discussions, case studies, and video-based learning) - Research & writing for assignments (ie, doing research on misconceptions in physics and write scientific papers for publication). <p>The class size for college is 20 students. Contact hours for lectures is 26.67 hours, assignments are 64 hours, and private study is 64 hours.</p>
Workload	For this course, students required to meet a minimum of 154.67 hours in one semester, which consist of: 26.67 hours for lecture, 64 hours for structured assignments, 64 hours for private study
Credit points	5.2 ECTS
Requirements according to the examination regulations	Students should have attended all lectures and submitted all scheduled individual and group assignments prior to the final examination.

Recommended prerequisites	Students should have attended all lectures and submitted all scheduled individual and group assignments prior to the final examination.
Program learning outcomes	<p>PLO 2 Master advanced knowledge of classical physics and modern physics</p> <p>PLO 2 Master advanced knowledge of classical physics and modern physics</p> <p>PLO 3 Able to design innovative physics learning in accordance with the demands of the curriculum by using appropriate evaluation and assessment techniques</p> <p>PLO 4 Able to develop learning aids by utilizing advanced information technology and the student environment</p> <p>PLO 5 Able to propose various alternative solutions to the problems of physics education with inter- and multidisciplinary approaches</p> <p>PLO 6 Able to design scientific research to solve physics education problems</p> <p>PLO 7 Able to carry out scientific research in the field of physics education based on scientific methodology, logical, critical, systematic and creative thinking.</p>

Content	<p>Students will learn about:</p> <p>The aim of this course is to provide students with independent work experience in preparing a physics education research thesis proposal. The thesis proposal includes several main parts, including: problem background, problem formulation, research objectives, research benefits, theoretical studies, and research methodology. Proposals must be supported by references to journal articles that are relevant to the issues to be researched and published in the last ten years. After the proposal is approved, students will be guided by two supervisors. Furthermore, the proposal will be tested for feasibility in a thesis proposal seminar. Lectures are conducted using a project-based learning approach, which is expected to assist students in conducting quality research.</p>
Forms of Assessment	Assessment of the learning process follows the following components: attendance 5%; assignments and presentations 30%; mid-test 30%, and final-test 35%.
Study and examination requirements	<p>Study and examination requirements:</p> <ul style="list-style-type: none"> - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the

	<p>deadline.</p> <ul style="list-style-type: none"> - Students must attend the exam to get final grade. <p>Form of examination: Forms of examination: project, and presentation.</p>
Media employed	Powerpoint slides, simulation videos, learning management system (LMS), ZOOM application, and UNJ e-learning.
Reading list	<ol style="list-style-type: none"> 1. Buku pedoman akademik (BPA) Program Pasca UNJ Tahun 2018 2. Buku Pedoman Akademik (BPA) FMIPA Tahun 2020 3. Mekanisme penulisan Tesis Program Magister Pendidikan FMIPA, 2017