

Module Description

Module name	Course Module
Module level, if applicable	Master of Physics Education
Code, if applicable	32363192
Subtitle, if applicable	-
Course, if applicable	Physics Learning Assessment
Semester(s) in which the module istaught	II (Even Semester)
Person responsiblefor the module	Lecturer of Courses
Lecturer	1. Dr. Firmanul Catur Wibowo
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 2 st semester.
Type of teaching, contact hours	<p>Teaching methods used in this course are:</p> <ul style="list-style-type: none"> - Lecture (i.e., group investigation, small group discussion, casestudy, and video-based learning) - Research & writing for assignments. <p>The class size for the lecture is 20 students. Contact hours for lecture is 26.67 hours, assignments are 64 hours, and privat 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 7 Able to carry out scientific research in the field of physics education based on scientific methodology, logical, critical, systematic and creative thinking.</p> <p>PLO 8 Able to produce scientific articles that have novelty, and publish them in accredited national scientific journals, proceedings of international seminars, or international journals.</p>
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Content	<p>Students will learn about:</p> <p>This course aims to discuss the concept of class-based evaluation and assessment, how to compile and develop assessment plans, develop instruments, analyze and interpret assessment results to make policies and improve the quality of learning physics in class. Topics covered include: the classroom assessment paradigm in making changes; the validity and reliability of the assessment results; bias in judgment, applying alternative assessments and developing the instrument; develop and analyze diagnostic assessments; compiling, administering, and improving assessments in class; evaluation and grading of student progress and assessment of student progress in class. Practically students will be trained in guided projects to design physics learning assessment instruments in class. To provide practical experience to students, lectures will be carried out using a case- and project-based learning approach. Through this lecture, it is hoped that students will be able to increase advanced knowledge in science and develop their professionalism in the field of physics education.</p>
Forms of Assessment	<p>Assessment of the learning process follows the following components: attendance 5%; assignments and presentations 30%; mid-test 30%, and final-test 35%.</p>
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 deadline. - 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. Lorin W dan Krathwohl, DR. (2001) A Taxonomy for Learning, Teaching, and Assessing: a revision of Bloom`s taxonomy of educational objectives. New York: Addison Wesley Longman Inc. 2. Charles Secolsky, D Brian Denison (2017) Handbook on Measurement, Assessment, and Evaluation in Higher Education, Publisher: Routledge. 3. David L. McArthur PhD (1989) Alternative Approaches to the Assessment of Achievement. Series: Evaluation in Education and Human Services. Publisher: Springer Netherlands. 4. Jacqueline Leighton, Mark Gierl (2007) Cognitive Diagnostic Assessment for Education: Theory and Applications 5. Matthias von Davier, Young-Sun Lee (2019) Handbook of Diagnostic Classification Models: Models and Model Extensions, Applications, Software Packages. 6. Susan M Brookhart; James H McMillan (2019) Classroom Assessment and Educational Measurement. Routledge.