

Module Descriptions

A **module** is a self-contained **learning unit** within a higher education program that includes thematically related courses and is assigned a **fixed number of credits**. It follows specific **learning objectives**, includes an **assessment component**, and contributes to achieving the qualifications of a degree program. In some countries, “modules” are also named “courses”.

Please provide a module description for each module. In addition to the compulsory and elective modules, this also includes credited internships and the final thesis.

Please summarize all module descriptions in one document (Module Handbook) and create a table of contents so that the modules can be found easily.

Module designation	<i>Assessment of Mathematics Education</i>
Semester(s) in which the module is taught	2
Person responsible for the module	<i>Prof. Dr. Jailani M.Pd. Dr. Dra. Elly Arliani M.Si. Dr. Syukrul Hamdi S.Pd., M.Pd.</i>
Language	<i>Indonesian.</i>
Relation to curriculum	<i>Compulsory.</i>
Teaching methods	<i>Lecture, discussion, and assignment.</i>
Workload (incl. contact hours, self-study hours)	<i>Total workload is 90.67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes self-study per week for 16 weeks.</i>
Credit points	2
Required and recommended prerequisites for joining the module	-

Module objectives/intended learning outcomes	<i>After taking this course the students have ability to:</i> <i>CO1. Demonstrating responsibility in completing both individual and group assignments. Students understand the concepts of Assessment for Learning, Assessment of Learning, and Assessment as Learning.</i> <i>CO2. Students understand Large-Scale Assessment and Classroom Assessment.</i> <i>CO3. Students understand HOTS (Higher-Order Thinking Skills) assessment and open-ended assessment.</i> <i>CO4. Students understand affective assessment and self-assessment.</i> <i>CO5. Students understand the use of ICT in mathematics education assessment.</i> <i>CO6. Students are able to write an article on assessment in mathematics education.</i> <i>CO7. Students understand and are able to describe the definitions of measurement, assessment, and evaluation; the importance of assessment in mathematics education; and government policies related to educational assessment.</i> <i>CO8. Students understand and are able to describe the forms of test and non-test instruments as well as their development procedures, and are able to develop instruments for measuring Higher-Order Thinking Skills (HOTS) in mathematics learning.</i> <i>CO9. Students understand the concept of validity, types of validity, reliability, and various methods for estimating coefficients.</i> <i>CO10. Students understand the concepts of classical test theory and item response theory, and are able to conduct item analysis.</i> <i>CO11. Students understand multidimensional assessment.</i>
Content	<i>This course covers the urgency and concepts of assessment in education, particularly in mathematics education. Topics include the development of both test and non-test assessment instruments, with a focus on constructing instruments to measure Higher-Order Thinking Skills (HOTS) in mathematics learning; establishing validity and estimating reliability; classical test theory and item response theory; theoretical and empirical item analysis for both test and non-test instruments (manually and using software); alternative assessment, multidimensional assessment, open-ended assessment, the use of ICT in assessment, self-assessment, affective assessment, and more. The course equips students with the knowledge and skills to design and develop test or non-test instruments for use in mathematics education and research. To achieve this, the course combines expository teaching, presentations, and discussions, and includes both group and individual assignments that require students to practice constructing and developing assessment instruments and to write articles on assessment in mathematics education, relevant to or supportive of their thesis research.</i>
Examination forms	<i>Assignments, presentations and written tests.</i>

Study and examination requirements	<i>The course assessment is divided into two main components:</i> Cognitive Assessment (50%) <i>This includes the following elements:</i> - Attendance: 0% - Quiz: 0% - Assignment: 10% - Midterm Exam (UTS): 20% - Final Exam (UAS): 20% Participatory Assessment (50%) <i>This includes:</i> - Case Study: 10% - Team-Based Project: 40% Total: 100%
Reading list	- Reynold, C.R., et al. (2010). <i>Measuremet and assesment in education</i>. New York: Pearson. - Nitko, Anthony J. 2007. <i>Educational assessment of students</i>. Englewood Cliffs. NJ: Prentice-Hall, Inc. - Ebel, R. L. & Frisbie, D. A. (1991). <i>Essentials of educational measurement</i>. USA: Prentice-Hall Inc. - Mardapi, D. (2016). <i>Pengukuran, penilaian, dan evaluasi pendidikan</i>. Yogyakarta: Parama Publishing. - Popham, W. James. 1995. <i>Classroom assessment: What Teachers Need to Know</i>. Boston: Allyn and Bacon. - Retnawati, H. 2015. <i>Analisis instrumen penelitian</i>. Yogyakarta: UNY Press. - Webb, N. F. dan Coxford, A.F. 1993. <i>Assessment in the mathematics classroom</i>. Reston, VA: National Council TM. H.