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	*Practicum on Innovation Mathematics-Instruction*
Semester(s) in which the module is taught	*1*
Person responsible for the module	*Dr. Ali Mahmudi M.Pd.* *Dr. Dra. Mathilda Susanti M.Si.* *Prof. Dr. Jailani, M.Pd.* *Dr. Atmini Dhoruri, M.S.*
Language	*Indonesian.*
Relation to curriculum	*Compulsory.*
Teaching methods	*Lecture, discussion, and assignment.*
Workload (incl. contact hours, self-study hours)	*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.*
Credit points	*2*
Required and recommended prerequisites for joining the module	-

Module objectives/intended learning outcomes	*After taking this course the students have ability to:* *CO1. Explaining the nature of mathematics and school mathematics, as well as the philosophy of mathematics instruction. Examining various innovations in mathematics education (such as innovative instructional models, innovative teaching strategies, innovative learning media, and ICT-based learning).* *CO2. Describing the types or methods of research (such as classroom action research and quasi-experimental research).* *CO3. Developing a research plan, a lesson implementation plan, and research data collection instruments.* *CO4. Conducting teaching or research in schools and reflecting on the learning process.* *CO5. Presenting the process and results of research analysis in a seminar.* *CO6. Analyzing various innovations in mathematics instruction (such as innovative instructional models, teaching strategies, learning media, and ICT-based instruction).* *CO7. Describing various types or methods of research (such as classroom action research and quasi-experimental research).* *CO8. Designing a research plan, a lesson implementation plan, and instruments for data collection.* *CO9. Carrying out teaching or research activities in schools, along with reflection on the learning process.* *CO10. Presenting the research process and findings in a seminar.*
Content	*This course discusses innovations in mathematics instruction that can be implemented in schools in accordance with curriculum developments, technological advancements, and the current demands for essential skills in the modern world.*
Examination forms	*Assignments , presentations and written tests.*
Study and examination requirements	*The course assessment is divided into two main components:* 1. ***Cognitive Assessment (50%)*** *This includes the following elements:* ○ *Attendance: 5%* ○ *Quiz: 5%* ○ *Assignment:5%* ○ *Midterm Exam (UTS): 15%* ○ *Final Exam (UAS): 20%* 2. ***Participatory Assessment (50%)*** *This includes:* ○ *Case Study: 25%* ○ *Team-Based Project: 25%* ***Total: 100%***

Reading list	*1. Cohen, Elizabeth G., Brody, Celeste M., dan Mara Sapon-Shevin. 2004. Teaching Cooperative Learning; The Challenge for Teacher Education. Albany, NY: University of New York Press* *2. Arends, Richard I. dan Ann Kilcher . 2010. Teaching for Student Learning Becoming an Accomplished Teacher . Madison Avenue, New York, NY : Routledge (hal 161-350)* *3. Brown, Stephen I. dan Walter, Marion I. . 2005. The Art of Problem Posing.Mahwah, NJ. : Lawrence Erlbaum Associates, Publishers (hal 12-171)* *4. Delisle, Robert . 1997. How Use Problem-based Learning In The Classroom. Alexandria, Virginia: Association for Supervision and Curriculum Development.* *5. van de Walle, John A. . 2007. Elemnetary and Middle School Mathematics. Teaching Developmentally. Boston, MA: Pearson Rducation, Inc.* *6. Robert Reid dan Torri Ortiz. 2006. Lienemann Strategy Instruction for Students with Learning Disabilities: Teaching Mathematics to Middle School Students with Learning Difficulties Marjorie Montague and Asha K. Jitendra, Editors. New York : The Guilford Press* *7. Polya, G. with a new foreword by John H . Conway. 2004. How to Solve It: A New Aspect of Mathematical Method. British: Princeton University Press* *8. . Uden, Lorna dan Chris Beaumont. 2006. Technology and Problem-Based Leaning. London: Information Science Publishing* *9. Torp, Linda dan Sara Sage. 2002. Problem-Based Learning for K–16. Alexandria, Virginia USA Education Association for Supervision and Curriculum* *10. Petrovic&Hoti. Project Based Learning and Distance Learning* *11. Sukoco, H., Marsigit, Dhoruri, A., & Susanti, M. (2022). Analisis kebutuhan pembelajaran matematika berbasis kearifan lokal Yogyakarta di SMP.*