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	*Innovative Mathematics-Learning Strategy*
Semester(s) in which the module is taught	*2*
Person responsible for the module	*Wahyu Setyaningrum S.Pd., M.Ed., Ph.D.* *Dr. Ali Mahmudi M.Pd.* *Dr. Dra. Mathilda Susanti M.Si.* *Prof. Dr. Jailani, M.Pd.*
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.* *CO2. Describing theories of mathematics learning.* *CO3. Examining various innovative models, approaches, strategies, and methods of mathematics instruction.* *CO4. Analyzing strategies for developing students’ mathematical thinking skills and character.* *CO5. Explaining the principles of managing innovative mathematics instruction.* *CO6. Designing instructional materials to develop specific mathematical skills based on innovative models, approaches, strategies, or methods of instruction.*

Content	*This course discusses curriculum concepts, particularly the 2013 Curriculum and the Merdeka Belajar (Independent Learning) Curriculum, along with their components. It explores the new paradigm of mathematics learning, standards for mathematics learning processes aligned with the Merdeka Belajar Curriculum, meaningful learning, and the development of mathematical understanding. The course also covers the development of higher-order mathematical thinking skills, scientific learning, and various innovative mathematics learning models such as problem-based learning, contextual learning, realistic mathematics education, problem-solving instruction, writing strategies in mathematics learning, and technology-integrated instruction. Additionally, students will develop mathematics lesson plans and practice their implementation on a limited scale based on the selected approaches or instructional strategies.*
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:10%* ○ *Midterm Exam (UTS): 15%* ○ *Final Exam (UAS): 15%* 2. ***Participatory Assessment (50%)*** *This includes:* ○ *Case Study: 20%* ○ *Team-Based Project: 30%* ***Total: 100%***

Reading list	*1. Permendikbud nomor 20 tahun 2016 tentang Standar Kompetensi Lulusan (SKL) Kurikulum 2013* *2. Permendikbud nomor 21 2016 tentang Standar Isi Kurikulum 2013* *3. Permendikbud nomor 22 tahun 2016 tentang Standar Proses Pembelajaran Kurikulum 2013* *4. Permendikbud nomor 23 tahun 2016 tentang Standar Penilaian Hasil Belajar Kurikulum 2013* *5. Permendikbud nomor 24 tahun 2016 tentang Kompetensi Inti dan Kompetensi Dasar Kurikulum 2013* *6. Permendikbud nomor 61 tahun 2014 tentang Kurikulum Tingkat Satuan Pendidikan (KTSP)* *7. Panduan Pengembangan Kurikulum Operasional di Satuan Pendidikan. Badan Penelitian dan Pengembangan dan Perbukuan Kemdikbudristek Tahun 2021* *8. Permendikbudristek nomor 5 tahun 2022 tentang SKL pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah* *9. Keputusan Kepala Badan Standar, Kurikulum, dan Asesmen Pendidikan Kemdikbudristek nomor 008/H/KR/2022 tentag Capaian Pembelajaran pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Menengah pada Kurikulum Merdeka.* *10. Keputusan Kepala Badan Standar, Kurikulum, dan Asesmen Pendidikan Kemdikbudristek nomor 009/H/KR/2022 tentang Dimensi, Elemen, dan Subelemen Prodil Pelajar Pancasila pada Kurikulum Merdeka* *11. Permendikbudristek nomor 7 tahun 2022 tentang Standar Isi pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan* *12. Permendikbudristek nomor 16 tahun 2022 tentang Standar Proses pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah* *13. Panduan Pengembangan Projek Penguatan Jenjang Pendidikan Dasar dan Memengah (SD/MI, SMP/MTs, SMA/MA) Profil Pelajar Pancasila. Pusat Asesmen dan Pembelajaran Badan Penelitian dan Pengembangan dan Perbukuan Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Jakarta Tahun 2021* *14. Panduan Pelaksanaan Pendidikan Inklusif. Pusat Kurikulum dan Perbukuan Badan Penelitian dan Pengembangan dan Perbukuan Kemdikbduristek Tahun 2021* *15. Panduan Penyusunan Program Pembelajaran Individual. Pusat Kurikulum dan Perbukuan Badan Penelitian dan Pengembangan dan Perbukuan Kemdikbduristek Tahun 2021.* *16. Panduan Pembelajaran dan Asesmen Jenjang Pendidikan Dasar dan Menengah. Pusat Asesmen dan Pembelajaran Badan Penelitian dan Pengembangan dan Perbukuan Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Jakarta 2022* *17. Permendikbudristek nomor 21 Tahun 2022 tentang Standar penilaian pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah* *18. Polya, G. 1971. How to Solve it. A New Aspect of Mathematical Method. Princeton, New Jersey: Princeton University Press*

	19. Westwood, P. 2008. What Teachers Need to Know about Teaching Method. Victoria Australia: ACER Press. *20. Arends, R.I. & Kilcher, A. 2010. Teaching for Student Learning. Becoming an Accomplished Teacher. New York: Routledge* *21. VanGundy, A.B. 2005. 101 Activities for Teaching Creativity & Problem Solving. SanFransisco: Pfeiffer* *22. Delisle, R. 1997. How to User Problem Based Learning in the Classroom. Alexandria, Virginia: ASCD* *23. Ricahrds, T. 2015. Problem Solving. Best Strategies to Decision Making, Critical Thinking & Positive Thinking.* *24. Tan, O. 2003. Problem Based Learning Innovation. Using Problems to Power Learning in the 21st Century. Singapore: Cengage Learning* *25. Butterworth, W. & Thwaites, G. 2013. Thinking Skills. Critical Thinking & Problem Solving. Mexico: Cambridge University Press* *26. Burns, M. 1995. Writing in Mat Class. Sausalito: Math Solutions Publications*