UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS DEPARTMENT, MATHEMATICS EDUCATION STUDY PROGRAM
Main Campus Universitas Negeri Padang.
Jalan Prof. Dr. Hamka Air Tawar Padang, Sumatera Barat
Phone: +62 751 7053902, Fax: +62 751 7055628
Email: matematika@fmipa.unp.ac.id

Bachelor of Mathematics Education **MODULE HANDBOOK**

Module name:	Introduction Basic Mathematics
Module level, if applicable:	Bachelor
Code:	MAT1.61.1301
Sub-heading, if applicable:	-
Classes, if applicable:	Introduction Basic Mathematics
Semester:	1st (first)
Module coordinator:	Dra. Dewi Murni, M.Si.
Lecturer(s):	Dra. Dewi Murni, M.Si., and Team
Language:	Bahasa Indonesia
Classification within the curriculum:	Study Programs Compulsory Course
Teaching format / class hours per week during the semester:	Teaching format: • Lectures (face to face activities): Group discussion and expository, • Structured assignment, and • Independent activities. 3 x 170 minutes = 510 minutes = 8.50 hours
Workload:	16 weeks per semester include Midterm Exam and Final Exam which consist of: • 2.50 hours lectures (3 x 50 minutes) per week, • 3 hours structured assignments (3 x 60 minutes) per week, • 3 hours independent activities (3 x 60 minutes) per week 16 x 170 x 3 = 8160 Minute = 136 hours = 4.53 ECTS
Credit points:	3 SKS (4.53 ECTS)
Prerequisites course(s):	-

Course outcomes:	After taking this course, the students have ability to: CO1 : Declare the basic concepts of sets, logic, and functions CO2 : Interpret basic concepts related to sets, logic, and functions CO 3 : Solve problems related to set, logic, and functions CO 4 : Analyze problems in daily life that discuss the basic concepts of set, logic, and function CO 5 : Show responsibility attitude towards independent activities and team works.
Content:	This course discusses: 1. set and their operations 2. cartesian number sets and multiplication 3. types and inverse of functions 4. relations 5. set algebra 6. duality 7. indexed sets 8. quantified sets 9. mathematical logic 10. propositions 11. propositional functions 12. arguments 13. tautology 14. proof of the validity of proposition functions 15. proof of the validity of numbered functions
Study/exam achievements:	Total Score = (30% x Midterm Exam) + (35% x Final Exam) + (25% x Assignment: homework, quiz) + (10% x Affective Score: responsibility, class attendance) The initial cut - off points for grades A, A-, B+, B, B-, C+, C, C-, and D should not be less than 85, 80, 75, 70, 65, 60, 55, 50, and 40 out of 100 respectively. **Explanation:** **1. Midterm Exam** ✓ Midterm Exam is held at the 9th meeting ✓ Midterm Exam is a written exam (essay test) and carried out in the classroom with an implementation time of 120 minutes according to the module schedule **2. Final Exam** ✓ Final Exam is held at the 16th meeting ✓ Final Exam is a written exam (essay test) and carried out in the classroom with an implementation time of 120 minutes which follows the Final Exam implementation schedule of the department **3. Assignments** ✓ Assignments are given as exercise before Midterm Exam and before Final Exam ✓ Assignments are about analyzing problems in daily

	life and solving them related to the contents of Introduction Basic Mathematics. ✓ Assignments are given as individual tasks and it is submitted in a limited time. **4. Affective Assessment** ✓ Affective assessment is held in every meeting by observing students' attitude in the classroom and daily interaction at campus such as punctuality, responsibility etc. ✓ The assessment is based on an observation sheet and it is given a score by affective rubric assessment.
Forms of media:	White-board, Laptop, LCD Projector
Literature:	1. Katminingsih, Y., & Widodo, S. (2017). *Pengantar Dasar Matematika*. Kediri: Fakultas Teknik Universitas Nusantara PGRI. 2. Subhan, M. (2017). *Pengantar Dasar Matematika*. Padang: FMIPA UNP. 3. Charles D. Miller, Vern E. Herren, John Hornsby, Margaret L. Morrow et al. (2012). *Mathematical Ideas 12th Edition*. Pearson, RM. JT. 4. Devlin, K. J. (2012). *Introduction to mathematical thinking* (Vol. 331). Palo Alto, CA: Keith Devlin. 5. Bartle, Robert G. and Donald R. Sherbert. (2011). *Introduction to Real Analysis*, 4th Edition. John Wiley.

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1	✓										
CO2	✓										
CO3	✓										
CO4	✓										
CO5										✓	