UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS DEPARTMENT, MATHEMATICS EDUCATION STUDY PROGRAM
Main Campus Universitas Negeri Padang.
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Bachelor of Mathematics Education **MODULE HANDBOOK**

Module name:	Real Analysis 1
Module level,if applicable:	Bachelor
Code:	MAT1.61.6101
Sub-heading,if applicable:	-
Classes,if applicable:	Real Analysis 1
Semester:	6^{th} (Sixth)
Module coordinator:	Dra. Helma, M. Si.
Lecturer(s):	Dra. Helma, M. Si., and Team
Language:	Bahasa Indonesia and English
Classification within the curriculum:	Program Study Compulsory Course
Teaching format / class hours per week during the semester:	Teaching format: • Lectures (face to face activities): expository, group discussion, presentation, problem based learning, • Structured assignment, • Independent activities, • practice. 3 x 170 minutes = 510 minutes = 8.50 hours.
Workload:	16 weeks per semester include mid-term exam and final exam, consisting of: • 1.67 hours lectures (2 x 50 minutes) per week, • 2 hours tutorial assignments (2 x 60 minutes) per week, • 2 hours independent activities (2 x 60 minutes) per week • 2.83 hours practice (1 x 170) per week 16 x 170 x 3 = 8160 Minute =136 hours = 5.43 ECTS
Credit points:	3 SKS = 5.43 ECTS
Prerequisites course(s):	Calculus and Introduction Basic Mathematics
Course outcomes:	After taking this course the students have ability to: CO 1 : Express the concept of the algebra of set; function; mathematical induction; absolute value; algebra, order & completeness properties of R; application of supremum property; sequences & their limits; limits theorems; monotone sequences. CO 2 : Apply the concept of the algebra of set; function; mathematical induction; absolute value; algebra, order & completeness properties of R; application of supremum property; sequences & their limits; limits

	theorems; monotone sequences CO 3 : Analyze the concept of the algebra of set; function; mathematical induction; absolute value; algebra, order & completeness properties of R; application of supremum property; sequences & their limits; limits theorems; monotone sequences CO 4 : Prove the problems that connect to the concept of mathematical induction; absolute value; algebra, order & completeness properties of R; application of supremum property; sequences & their limits; limits theorems; monotone sequences CO 5 : Show the responsibility attitude in own works
Content	This course discusses: 1. mathematical sets, functions, and induction 2. properties of real numbers 3. sequences of real numbers
Study/exam achievements:	Total Score = (30% x Midterm Exam Score x) + (30% x Final exam score) + (20% x Task Assignment) + (15% Affective assessment score) 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 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 and carried out in the classroom with an implementation time of 120 minutes which follows the Final Exam implementation schedule of the department **3. Task Assignment** ✓ Task are given once every week based on the topic ✓ Task are given as individual task and it is in form paper and it is assessed by rubric assessment. **4. Affective Assessment** ✓ Affective assessment is held in every meeting by observing students' attitude in classroom and daily interaction at campus ✓ The assessment is based on observation sheet and it is given score by affective rubric assessment
Forms of media:	White-board, Laptop, and LCD
Literature:	1. Sherbert, D. R., Bartle, R. G. (2020). Introduction to Real Analysis, Fourth Edition. (n.p.): Independently Published. 2. Cummings, J. (2019). Real Analysis: A Long-form Mathematics Textbook. United States: LongFormMath.com. 3. Fitzpatrick, P., Royden, H. (2017). Real Analysis (Classic

	Version). United Kingdom: Pearson. 4. Analisis Real Untuk Perkuliahan. (n.d.). (n.p.): Uwais Inspirasi Indonesia. 5. Kumar, A., Kumaresan, S. (2014). A Basic Course in Real Analysis. United Kingdom: CRC Press. 6. Berberian, S. K. (2012). A First Course in Real Analysis. United States: Springer New York. 7. Suryanto& Sukardjono.(2010).Pengantar Analisis Real. Jakarta: Universitas Terbuka.

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1	✓										
CO2	✓										
CO3	✓										
CO4	✓										
CO5										✓	
CO6										✓	