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

Module name:	Calculus
Module level, if applicable:	Bachelor
Code:	FMA1.60.1302
Subheading, if applicable:	-
Classes, if applicable:	Calculus
Semester:	1st (first)
Module coordinator:	Head of Mathematics Study Program
Lecturer(s):	Dr. Arnellis, M.Si, Dra. Dewi Murni, M.Si. and Dina Agustina, S.Pd. M.Sc.
Language:	Indonesian Language and English
Classification within the curriculum:	Compulsory course in the first year (1st semester) Bachelor Degree
Teaching format / class hours per week during the semester:	a. Lectures : by expository and cooperative learning with methods such as presentations, group and class discussion. (4 x 50 minutes = 200 minutes) b. Structured assignment : Weekly individual written assignment. (4 x 60 minutes = 240 minutes) c. Individual study. (4 x 60 minutes = 240 minutes)
Workload:	Total workload is 181,33 hours per semester, which consists of 200 minutes lectures, 240 minutes structured activities, and 240 minutes individual study for 16 weeks per semester, including mid exam and final exam.
Credit points:	4 SKS = 6.04 ECTS
Prerequisites course(s):	None

Course outcomes:	After taking this course the students have ability to: CO1. Interpreting inequality, function, limit, derivative and integral concepts. CO2 Applying inequality, function, limit, derivative and integral concepts in solving mathematical problems. CO3. Analyzing problems related to the concept of functions, limits, derivatives and integrals.
Content:	1. Function 2. Limit 3. Differential 4. Application of Differential 5. Integral 6. Application of integral
Study/exam achievements:	The final mark will be weighted as follows: The assessment consists of final exam (30 %), mid term exam (30%), assignment (20 %), presentation (10%), and classroom activities (10%). Final and mid term exams are in the form of a closed book essay written test (120 minutes). Weekly assignments (solving selected problems) are given in two forms; group or individual assignments. Presentations, held in the classroom after collecting the group task, are focused on the performance of group members.
Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.
Literature:	Main: Purcell, Edwin J, Dale Verberg, and Steven E. Rigdon. 2007. *Calculus 1,* 9th edition. Alih Bahasa : Julian Gresando, Gramedia, Jakarta. Supporting: 1. James Stewart. 2015. Calculus 8th ed, CENGAGE 2. Thomas. 2017. *Calculus 14th* ed. , Pearson

PLO and CO Mapping

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