Module Description of Basic Mathematics II

Module Name	:	Basic Mathematics II
Module Level	:	Bachelor
Code, if applicable	:	23H01110303
Subtitle, if applicable	:	-
Courses, if applicable	:	-
Semester(s) in which the module is taught	:	2 (Second Semester)
Module coordinator(s)	:	Jusmawati Masalesse, S.Si., M.Si.
Lecturer(s)	:	Naimah Aris, S.Si, M.Math & Dr. Andi Muh Anwar, S.Si,
Language	:	Bahasa (Indonesian language)
Relation to curriculum	:	Compulsory course in second year for Bachelor degree in Mathematics
Type of teaching/teaching method	:	Lecturing, Small Group Discussion, Collaborative Learning
Contact hours	:	150 minutes Lectures per week, 180 minutes Structured Assignments per week, and 180 minutes Independent Study per week
Workload	:	Total workload is 135 hours per semester which consists of 40 hours per semester for Lectures, 47.5 hours per semester for Independent Study, and 47.5 hours per semester for Structured Assignments
Credit points	:	3 (4.8 ECTS)
Requirements according to the examination regulations	:	Students are required to attend at least 80% of the total meetings which is recorded via the attendance menu at https://sikola-v2.unhas.ac.id/, complete all mandatory assignments, and obtain permission from the lecturer to participate in the examination.
Recommended prerequisites	:	Basic Mathematics I
Module objectives/intended learning outcomes	:	After the completion of this module, the student will be able to: CLO 1. determine solutions to problems related to the concepts of single-variable calculus. CLO 2. apply the concepts of calculus and matrices appropriately, effectively, and systematically in various contextual problems relevant to their field of study. The following is the mapping of the ILO and the CLO of this course:
Content	:	In this course, students study the fundamental concepts of multivariable calculus. Topics include functions of two or more

	ILO 2	ILO 3
CLO 1	X	
CLO 2		X

		variables, limits and continuity of multivariable functions, partial derivatives and directional derivatives, extrema of multivariable functions, multiple integrals, as well as first-order differential equations. The learning methods applied in this course consist of lectures, discussions, and the case method, all of which are designed to support the achievement of the intended Course Learning Outcomes.
Study and examination requirements	:	Study and examination requirements: ● Students must attend 15 minutes before the class starts. ● Students must switch off all electronic devices. ● Students must inform the lecturer if they will not attend the class due to sickness, etc. ● Students must submit all class assignments before the deadline. ● Students must attend the exam to get final grade.
Exams and assessment formats	:	Participants are marked based on their performance in theory: Written Exam (40%) and Report (60%) Reports measure analytical and writing skills. The Written Exam assesses comprehension and synthesis of all materials discussed during the semester. Altogether, these components account for 100% of the final grade. Students are marked based on their percentage of points obtained and based on the following grade scale:

Percentage of Achievement	Grade	Conversion Value
85 – 100	A	4.00
80 - <85	A-	3.75
75 - < 80	B+	3.5
70 - < 75	B	3.0
65 - < 70	B-	2.75
60 - < 65	C+	2.5
50 - < 60	C	2.00
40 - < 50	D	1.00
< 40	E	0.00

Reading list	:	1. Thomas G.B., Weir, M. D., Hass, J.R.2013. "Thomas Calculus early transcendentals", 13th edition, Pearson. 2. James Stewart. 2015. "Single Variable Calculus: Early Transcendentals", Thomson Brooks/Cole.
Last revision date	:	February 5th, 2025