



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:	Elementary Linear Algebra
Module level, if applicable:	Bachelor
Code:	MAT1.62.3001
Subheading, if applicable:	-
Classes, if applicable:	Elementary Linear Algebra
Semester:	3 rd (third)
Module coordinator:	Head of Algebra Expertise Group
Lecturer(s):	Dra. Dewi Murni and Muhammad Subhan, M.Si.
Language:	Indonesian Language and English
Classification within the curriculum:	Compulsory course in the second year (3 rd semester) Bachelor Degree
Teaching format / class hours per week during the semester:	<ol style="list-style-type: none">Lectures : by cooperative learning with methods such as expository, discussion and practicum. (4 x 50 minutes = 200 minutes)Structured assignment : Weekly individual written assignment. (4 x 60 minutes = 240 minutes)Individual study. (4 x 60 minutes = 240 minutes)
Workload:	The total workload is 183,33 hours per semester, which consists of 200 minutes lectures, 240 minutes structured activities, and 240 minutes of self-study. In total, there are 16 weeks per semester, including midterm and final exams.
Credit points:	4 SKS = 6.04 ECTS
Prerequisites course(s):	Introduction to Foundation of Mathematics

Course outcomes:	<p>After taking this course the students have ability to:</p> <p>CO1. Showing scientific attitude in the form of enthusiasm, honesty, work ethics, and responsibility.</p> <p>CO 2. Solving mathematical problems related to matrices, system of linear equations, vector space, eigenvalues, inner product space, and linear transformation.</p> <p>CO3. Proving the mathematical statements related to matrices, system of linear equations, vector space, eigenvalues, inner product space, and linear transformation.</p> <p>CO4. Using mathematical software on solving elementary linear algebra problems.</p>
Content:	<ol style="list-style-type: none"> 1. System of linear equations 2. Matrices 3. Determinant 4. Vector in R^2 and R^3 5. Euclidean vector spaces 6. General vector spaces 7. Inner product 8. Eigenvalues and eigenvector
Study / Exam achievement:	<p>The final mark will be weighted as follows: The assessment consists of final exam (25 %), mid term exam (25%), assignment (20 %), discussion (20%), and practicum activity (10%)</p> <p>Final and mid term exams are in the form of a closed book essay written test (120 minutes).</p> <p>Weekly assignments (solving selected problems) are given in two forms; group or individual assignments.</p> <p>Class group sessions in teams to discuss a given topic.</p> <p>The practicum is intended to help students comprehend the topic completely.</p>
Forms of Media	<p>White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.</p>
Literature	<ol style="list-style-type: none"> 1. Anton, H (2013), Elementary Linear Algebra 11th ed. Wiley 2. Andrilli, S. (2016), Elementary Linear Algebra 5th ed, Academic Press. 3. Nicholson (2001), Elementary Linear Algebra, Mc-Graw Hill

PLO and CO Mapping

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