MODULE HANDBOOK

Module Name:	Elementary Linear Algebra
Module Level:	Sarjana (S-1) / Bachelor
Abbreviation, if applicable:	8420203007
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	3/ Second year
Module Coordinator(s):	Dr. R. Sulaiman, M.Si
Lecturer(s):	Dr. R. Sulaiman, M.Si Dwi Nur Yunianti, M.Si Dini Kinati Fardah, M.Pd
Language:	Indonesia
Classification within the curriculum:	Compulsory course/ ~~elective studies~~
Teaching format/class hours per week during the semester	Teaching format: lectures, tutorial assignment, and individual study. 3 x 170 minutes = 510 minutes = 8.5 hours lectures
Workload:	15 weeks per semester consisting of: ➢ 2.5 hours lectures (3 x 50 minutes) per week, ➢ 3 hours tutorial assignments (3 x 60 minutes) per week, ➢ 3 hours individual study (3 x 60 minutes) per week, Total workload : 14x3x170 minutes = 7,140 minutes = 4.76 ECTS*
Credit Point:	3
Requirements:	Intergal Calculus
Learning Goals:	**Knowledge** CLO-1: Explain concepts and techniques for solving systems of linear equations with Elementary Row Operations (ERO), Matrices and their operations, vector and subspace spaces, bases and dimensions, row / column space, inner product space, linear transformations, eigenvalues, vectors. eigen, and diagonalization. CLO-2: Demonstrate the application of the concept of linear equation systems, matrices and their operations, vector and subspace spaces, bases and dimensions, row / column

	space, inner product space, linear transformations, eigenvalues and eigenvectors. **Skill** CLO-3: Implement the basic principles of the system of linear equations, matrices and their operations, vector and subspace spaces, bases and dimensions, row / column space, inner product space, linear transformations, eigenvalues and eigenvectors to solve simple mathematical problems.
Content:	Systems of linear equations, matrices and their operations, vector spaces and subspaces, bases and dimensions, row / column space, inner product space, linear transformations, eigenvalues and eigenvectors.
Study/exam achievements	➢ Students are considered competent and pass if the final score calculated from the score of midterm exam, assignments, participation, and final exam is at least 55 or C. ➢ Final score is calculated as follows: ➢ 20% midterm exam + 30% assignments + 20% participation + 30% final exam ➢ Final index is defined as follow:

Index	Converted Score	Score Range
A	4.00	$85 \leq A \leq 100$
A-	3.75	$80 \leq A- <85$
B+	3.50	$75 \leq B+ <80$
B	3.00	$70 \leq B <75$
B-	2.75	$65 \leq B- <70$
C+	2.50	$60 \leq C+ <65$
C	2.00	$55 \leq C <60$
D	1.00	$40 \leq D <55$
E	0.00	$0 \leq E <40$

Forms of Media	Slides and LCD projectors, whiteboard
Literature	[1] Anton, H. & Rorres, C.2005. *Elementary Linear Algebra (ninth Edition)*. New York. John Wiley & Sons. [2] Andrilli, S. & Hecker, D. 2009. *Elementary Linear Algebra (Fourth Edition)*. Berlin. Academic Press. [3] H. Ted Davis & Kendall T Thomson. 2000. *Linear Algebra and Linear Operators in Engineering*. Academic Press

Note	*Total hours per 1 credit in 1 semester={(1 credit x 170 minutes x 14 weeks)/60 minutes}=39,67 hours. Each ECTS equals with 25 hours therefore 1 credit in 1 semester equals 1,59 ECTS.