

MODULE HANDBOOK

Module Name:	Linear Algebra
Module Level:	Sarjana (S-1) / Bachelor
Abbreviation, if applicable:	8420203006
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	8/ Fourth year
Module Coordinator(s):	Dr. Agung Lukito, M.S
Lecturer(s):	Dr. R. Sulaiman, M.Si Dr. Agung Lukito, M.S.
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: <ul style="list-style-type: none"> ➤ 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:	Elementary Linear Algebra
Learning Goals:	<p>Knowledge</p> <p>CLO-1: Able to explain the concept of inner product space over complex fields, types of linear operators and their relationships, and the spectral decomposition of linear operators.</p> <p>Skill</p> <p>CLO-2: Able to implement the basic principles of inner product space over complex fields, types of linear operators and their relationships, and the spectral decomposition of linear operators to solve simple mathematical problems.</p>

Content:	Inner product space over complex fields, types of linear operators and their relationships, and the spectral decomposition of linear operators																														
Study/exam achievements	<ul style="list-style-type: none"> ➤ 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: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Index</th> <th>Converted Score</th> <th>Score Range</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4.00</td> <td>$85 \leq A \leq 100$</td> </tr> <tr> <td>A-</td> <td>3.75</td> <td>$80 \leq A- < 85$</td> </tr> <tr> <td>B+</td> <td>3.50</td> <td>$75 \leq B+ < 80$</td> </tr> <tr> <td>B</td> <td>3.00</td> <td>$70 \leq B < 75$</td> </tr> <tr> <td>B-</td> <td>2.75</td> <td>$65 \leq B- < 70$</td> </tr> <tr> <td>C+</td> <td>2.50</td> <td>$60 \leq C+ < 65$</td> </tr> <tr> <td>C</td> <td>2.00</td> <td>$55 \leq C < 60$</td> </tr> <tr> <td>D</td> <td>1.00</td> <td>$40 \leq D < 55$</td> </tr> <tr> <td>E</td> <td>0.00</td> <td>$0 \leq E < 40$</td> </tr> </tbody> </table> 	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	$0 \leq E < 40$
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Forms of Media	Slides and LCD projectors, whiteboard																														
Literature	<p>[1] Friedberg, Stephen H. et al. 1989. Linear Algebra. New Jersey: Prentice-Hall, Inc.</p> <p>[2] Lax, Peter D. 1997. Linear Algebra. New York: John Wiley and Sons, Inc.</p>																														
Note	<p>*Total hours per 1 credit in 1 semester = $\{(1 \text{ credit} \times 170 \text{ minutes} \times 14 \text{ weeks}) / 60 \text{ minutes}\} = 39,67 \text{ hours}$.</p> <p>Each ECTS equals with 25 hours therefore 1 credit in 1 semester equals 1,59 ECTS.</p>																														