Module designation	*Linear Algebra*
Semester(s) in which the module is taught	*4*
Person responsible for the module	*Dr. Karyati*
Language	*Bahasa Indonesia*
Relation to curriculum	*Compulsory course*
Teaching methods	*150 minutes lectures and 180 minutes structured activities per week.*
Workload (incl. contact hours, self-study hours)	*Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.*
Credit points	*3*
Required and recommended prerequisites for joining the module	*MAT6306 Elementary Linear Algebra*
Module objectives/intended learning outcomes	*After taking this course the students have ability to:* *CO1. Demonstrate respect for other people's opinions in completing group and individual tasks* *CO2. Able to think critically, creatively, innovatively, and systematically in the development of theory and application of advanced linear algebra.* *CO3. Mastering in depth both theory and application of Advanced Linear Algebra* *CO4. Prove properties such as theorem, lemma, simple consequences related to the theory of Advanced Linear Algebra*
Content	*This course discusses General Vector Space, Vector Subspace, Linear Combination, Spanning, independent linear, Basis,Dimension, Row and column space, Inner product space, vector length and distance, Orthogonal and orthonormal Basis, Gram-Schmidt Process, Vector Coordinate and Basis Change, Linear Transformation, Kernel and range, Rank and Nullity, Linear Transformation Matrix, Similarity, Eigenvalue and Eigenvector, Diagonalization of Matrices and their properties.*
Examination forms	*CO1: Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude.*

Study and examination requirements	The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.

The final mark will be weight as follow:

No	CO	Assessment Object	Assessment Technique	Weight
1	CO 1	a. Presentation b. Discussion	Observation	5% 10%
2	CO 2, CO 3, CO 4	a. Individual assignment b. Group assignment c. Quiz d. Midterm e. Final test	Written	10% 10% 20% 20% 25%
		Total		100%

Reading list	

1. Anton, H, 1995. *Elementary Linear Algebra*. New York. John Wiley and Sons.

2. Anton, H, 1995. *Linear Algebra and Its Application*. New York. John Wiley and Sons

3. Poole, D, 2006. *Linear Algebra: A Modern Introduction, 2nd Edition*. Belmont: Thomson Higher Education

4. Bretscher. 1997. *Linear Algebra with Application*. International Edition. London: Prentice-Hall International.