

Description of Course Unit

Course unit title	Vector and Matrice
Course unit code	VS 191202
Type of course unit (compulsory, optional)	Compulsory
Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)	First cycle Bachelor
Year of study when the course unit is delivered (if applicable)	
Semester/trimester when the course unit is delivered	Two
Number of ECTS credits allocated	4.8
Name of lecturer(s)	Dwi Endah Kusriani, Iis Dewi Ratih, Nur Azizah, Muhammad Reza Habibi, Muhammad Alifian Nuriman
Learning outcomes of the course unit	Students are able to master the basic concepts of mathematics to understand theories about Vectors, Basic Operations of Matrices, Determinants, Inverses, Random Vectors, Systems of Linear Equations, Vector Spaces, Values and Eigen Vectors.
Mode of delivery (face-to-face, distance learning)	Face to face
Prerequisites and co-requisites (if applicable)	Applied Probability, Engineering Mathematics
Course content	Vector concepts, matrix operations, Determinants and matrix inverses, Random vector concepts, Linear equation systems, Vector space, Concepts Roots and characteristic vectors for diagonalization of a matrix., Matrix factor Quadratic form, Matrix derivative
Recommended or required reading and other learning resources/tools	<ul style="list-style-type: none"> • Jhames R.Schott, Matrix Analysis for Statistics, Jhon Wiley and Sons, New York, 2017 • Shaley R Searle, Matrix Algebra Useful of Statistics. Jhon Wiley and Sons, New York, 1984 • Linear Algebra 4th edition, Seymour Lipschutz, dan Marc Lars Lipson, Mc Graw Hill, 2009
Planned learning activities and teaching methods	Problem Based Learning, Blended Learning
Language of instruction	Indonesian Language
Assessment methods and criteria	Assignment, Quiz, Midterm Exam and Final Exam