UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES MATHEMATICS
DEPARTMENT, MATHEMATICS STUDY PROGRAM
Main Campus Universitas Negeri Padang.
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Module name:	Introduction to Stochastic Process
Module level, if applicable:	Bachelor
Code:	MAT2.62.5004
Subheading, if applicable:	-
Classes, if applicable:	Introduction to Stochastic Process
Semester	5th (fifth)
Module coordinator:	Head of Statistics Expertise Group
Lecturer(s):	Dra. Helma, M.Si. and Defri Ahmad, M.Si.
Language:	Indonesian Language and English
Classification within the curriculum:	Elective course in the third year (5th semester) of Bachelor Degree
Teaching format / class hours per week during the semester:	a. Lectures : Problem Based Learning with methods such as expository, discussion, and drill. (3 x 50 minutes = 150 minutes) b. Structured assignment : Weekly individual written assignment. (3 x 60 minutes = 180 minutes). c. Individual study (3 x 60 minutes = 180 minutes).
Workload:	150 minutes lectures, 180 minutes structured activities, 180 minutes individual study, 16 weeks per semester (including mid term), 136 hours per semester.
Credit points:	3 sks = 4,53 ECTS
Prerequisites course(s):	Probability Theory

Course outcomes:	After taking this course the students have ability to: CO. 1 Examine various types of stochastic processes CO. 2 Use the theoretical properties of stochastic processes CO. 3 Apply both analytical and computational techniques to solve stochastic models
Content:	1. Introduction Stochastic Processes and its applications 2. The Poisson Process 3. Discrete Time Markov Chains
Study/exam achievements:	The final grade will be weighted as follows: The assessment consists of a final exam (35%), a midterm exam (35%), task (20 %), and class activities: participation, attitude, and presence (10%). The final and midterm exams are essay tests with a closed book (120 minutes). In class, students build the concept (discussion) based on the problem that related to this course. Each student gets a weekly assignment as an individual or group.
Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.
Literature:	1. Shelldon M. Ross, 2010, Introduction to Probability Models. 10th edition.California. Academic Press Gregory F. Lawler, 2006, 2. Introduction to Stochastic Processes, Chapman & Hall/CRC Probability Series. Wayne L. Winston, 2003, Operations Research: Applications and 3. Algorithms, Duxbury Press. Sheldon M. Ross, 1996, Stochastic Processes. 2 nd editon. John Wiley & Sons,Inc.

PLO and CO Mapping

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