



**UNIVERSITAS NEGERI PADANG**  
FACULTY OF MATHEMATICS AND NATURAL SCIENCES MATHEMATICS  
DEPARTMENT, MATHEMATICS STUDY PROGRAM  
Main Campus Universitas Negeri Padang.  
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**Bachelor of Science in Mathematics**

**MODULE HANDBOOK**

Module name:	Elementary Statistics
Module level, if applicable:	Bachelor
Code:	MAT1.61.3302
Subheading, if applicable:	-
Classes, if applicable:	Elementary Statistics
Semester	3 <sup>rd</sup> (third)
Module coordinator:	Head of Statistics Expertise Group
Lecturer(s):	Dra. Media Rosha, M.Pd. and Dr. Suherman, M.Pd.
Language:	Indonesian Language and English
Classification within the curriculum:	Compulsory course in the second year (3 <sup>rd</sup> semester) of Bachelor Degree
Teaching format / class hours per week during the semester:	<ol style="list-style-type: none"><li>Lectures : Problem Based Learning with methods such as expository, discussion, and drill. (4 x 50 minutes = 200 minutes)</li><li>Structured assignment : Weekly individual written assignment. (4 x 60 minutes = 240 minutes).</li><li>Individual study (4 x 60 minutes = 240 minutes).</li></ol>
Workload:	Total workload is 181,33 hours, which consist of 100 minutes lectures 2 times a week for 16 weeks, 120 minutes structured activities 2 times a week, and 120 minutes individual study 2 times a week, in total 16 weeks per semester, including mid and final exam.
Credit points:	4 SKS = 6.04 ECTS
Prerequisites course(s):	None

Course outcomes:	<p>After taking this course the students have ability to:</p> <p>CO. 1 Use the concept of descriptive and inferential statistics to describe a data set using graphs and numerical summaries</p> <p>CO. 2 Implement the properties of the probability to solve the problem</p> <p>CO. 3 Detect and identify various distributions based on data from a problem</p> <p>CO. 4 Detect, identify and perform appropriate inferential statistical tests from hypothesis testing to obtain correct conclusions based on the results of the hypothesis testing.</p> <p>CO. 5 Apply statistics and develop exploration and data analysis skills to gain insights from real-life problems</p>
Content:	<ol style="list-style-type: none"> <li>1. Basic Concepts of Statistics: of statistics, data and measurements, population and samples, and parameters and statistics.</li> <li>2. Descriptive Statistical Analysis: data presentation using tables and graphs and central tendency</li> <li>3. Probability: Counting rules, conditional probability, independent and dependent probability, Bayes Theorems.</li> <li>4. Normal distribution, t-distribution, F-distribution, and Chi-Square distribution.</li> <li>5. Inferential Statistical Analysis: Estimating parameters and testing hypotheses about mean, proportion, and variance.</li> <li>6. Analysis of Variance: One-way analysis of variance and multiple comparison test.</li> <li>7. Regression and linear correlation</li> </ol>
Study/exam achievements:	<p>The final grade will be weighted as follows:</p> <p>The assessment consists of a final exam (40%), a midterm exam (30%), task (20 %), and class activities (10%). The final and midterm exams are essay tests with a closed book (120 minutes).</p> <p>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</p>
Forms of media:	<p>White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.</p>

