Module Description of Statistical Methods

Module Name	:	Statistical Methods
Module Level	:	Bachelor
Code, if applicable	:	23H01110703
Subtitle, if applicable	:	-
Courses, if applicable	:	Statistical Methods
Semester(s) in which the module is taught	:	2 (Second Semester)
Module coordinator(s)	:	Nur Rohmah Oktaviani Putri, S.Si., M.Si
Lecturer(s)	:	Nur Rohmah Oktaviani Putri, S.Si., M.Si Prof. Dr. Aidawayati Rangkuti
Language	:	Bahasa (Indonesian language)
Relation to curriculum	:	Compulsory course in the first year for Bachelor Degree in Mathematics
Type of teaching/ teaching method		Lecturing, Small Group Discussion, Collaborative Learning, Self-Directed Learning, Project Base Learning
Contact hours	:	150 minutes Lectures per week, 180 minutes Structured Assignments per week, and 180 minutes Independent Study per week
Workload	:	Total workload is 135 hours per semester which consists of 40 hours per semester for Lectures, 47.5 hours per semester for Independent Study, and 47.5 hours per semester for Structured Assignments
Credit points	:	3 (4.8 ECTS)
Requirements according to the examination regulations	:	Students are required to attend at least 80% of the total meetings which is recorded via the attendance menu at https://sikola-v2.unhas.ac.id/, complete all mandatory assignments, and obtain permission from the lecturer to participate in the examination.
Recommended prerequisites	:	Students have completed and taken the exams for Calculus I and Calculus II
Module objectives/intended learning outcomes	:	After completion of this module, students will be able to: CLO 1. apply the basic statistical knowledge; CLO 2. collect, process, analyze and interpretation of data based on the basic statistical knowledge; CLO 3. demonstrate their understanding of the basic statistical concept to solve a statistical related-problem through the use of technology; CLO 4. communicate statistical ideas in appropriate contexts both orally and in writing with group. The following is the mapping of the ILO and the CLO of this course:

	ILO 1	ILO 6	ILO 7	ILO 9
CLO 1	X			
CLO 2	X	X		
CLO 3		X	X	
CLO 4			X	X

<table>
<tr><td>Content</td><td>:</td><td>This course introduces statistical concepts that used to collect, describe, analyze, and interpret data. It aims to develop students' analytical thinking by providing both theoretical understanding and practical applications of statistics in real-world problems. The course also covers data presentation, statistical measures, probability, and sampling distribution.</td></tr>
<tr><td>Study and examination requirements</td><td>:</td><td>Study and examination requirements:
Students must attend 15 minutes before the class starts.
Students must switch off all electronic devices.
Students must inform the lecturer if they will not attend the class due to sickness, etc.
Students must submit all class assignments before the deadline.
Students must attend the exam to get final grade.</td></tr>
<tr><td>Exams and assessment formats</td><td>:</td><td>Participants are marked based on their performance in theory: Quizzes (20%), Presentation (50%), and Assignments (30%).

Assignments assess student's ability to apply concepts independently. Presentations evaluate oral communication, organization of ideas, and confidence in delivering academic material. Quizzes are used to test continuous understanding of weekly content. Altogether, these components account for 100% of the final grade.

Students are marked based on their percentage of points obtained and based on the following grade scale:
<table>
<tr><th>Percentage of Achievement</th><th>Grade</th><th>Conversion Value</th></tr>
<tr><td>85 – 100</td><td>A</td><td>4.00</td></tr>
<tr><td>80 - <85</td><td>A-</td><td>3.75</td></tr>
<tr><td>75 - < 80</td><td>B+</td><td>3.5</td></tr>
<tr><td>70 - < 75</td><td>B</td><td>3.0</td></tr>
<tr><td>65 - < 70</td><td>B-</td><td>2.75</td></tr>
<tr><td>60 - < 65</td><td>C+</td><td>2.5</td></tr>
<tr><td>50 - < 60</td><td>C</td><td>2.00</td></tr>
<tr><td>40 - < 50</td><td>D</td><td>1.00</td></tr>
<tr><td>< 40</td><td>E</td><td>0.00</td></tr>
</table></td></tr>
<tr><td>Reading list</td><td>:</td><td>1. Walpole, R. E., Myers, R. H., Myers, S. L., and Ye, K. 2002. Probability & Statistics for Engineers & Scientist. 7th-Ed, Pearson Education International
2. Sudjana, 2005. Metoda Statistika. Edisi 6. Tarsito. Bandung</td></tr>
<tr><td>Last revision date</td><td>:</td><td>February 5th, 2025</td></tr>
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