



MINISTRY OF HIGHER EDUCATION, SCIENCE, AND  
TECHNOLOGY

UNIVERSITAS NEGERI SURABAYA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES

UNDERGRADUATE PROGRAM OF MATHEMATICS EDUCATION

Ketintang Campus, Jalan Ketintang, C8 C9 Building, Surabaya 60231

Phone: +62 895335466373, email: [s1-pmat@unesa.ac.id](mailto:s1-pmat@unesa.ac.id)

Website: <https://pendidikan-matematika.fmipa.unesa.ac.id/>

**Undergraduate Program of Mathematics**

**Module Handbook**

<b>Module Name:</b>	Statistics (Statistika)
<b>Module Level:</b>	Sarjana (S-1) / Undergraduate
<b>Abbreviation, if applicable:</b>	8420203233
<b>Sub-heading, if applicable:</b>	-
<b>Course included in the module, if applicable:</b>	-
<b>Semester/term:</b>	3 / Second year
<b>Module Coordinator(s):</b>	Dr. Rini Setianingsih, M.Kes.
<b>Lecturer(s):</b>	Dr. Ismail, M.Pd. Dr. Yurizka Melia Sari, M.Pd. Dr. Mukhtamilatus Sa'diyah, M.Pd.
<b>Language:</b>	Indonesia
<b>Classification within the curriculum:</b>	Compulsory course/elective studies
<b>Teaching format/class hours per week during the semester</b>	Teaching format: lectures, tutorial assignment, and individual Study/3 x 170 minutes = 510 minutes = 8.5 hours lectures
<b>Workload:</b>	16 weeks per semester consisting of: • 1-hour lectures (1 x 50 minutes) per week, • 1 hour's assignments (1 x 60 minutes) per week, ➤ 1 hour's individual study (1 x 60 minutes) per week,  Total workload : 16x3x170 minutes = 8,160 minutes = 136 hours=4.77 ECTS*
<b>Credit Point:</b>	3
<b>Requirements:</b>	N/A



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<b>Learning Goals :</b>	<p>PLO-5: Posses basic mathematical knowledge to solve mathematical problems and their applications in education.</p> <p>PLO-6: Master the principles of mathematical knowledge to support mathematical thinking skills in solving mathematical problems.</p>																																																
<b>Content:</b>	This course discusses the fundamental principles of statistics required for mathematical problem solving and education, aiming to apply statistical concepts in analyzing data and making valid decisions focusing on descriptive statistics (central tendency, dispersion, and data visualization), probability distributions, and inferential statistics (hypothesis testing) through project-based learning assignments carried out with a critical and analytical attitude, in accordance with the demands of real-world data application.																																																
<b>Study/exam achievements</b>	<ul style="list-style-type: none"><li>Students are considered competent and pass if the final score calculated from the score of midterm exam, assignments, participation, and final exam is at least 55 or C.</li><li>Final score is calculated as follows:</li></ul> <table border="1"><thead><tr><th>Week</th><th>Course Learning Outcomes (CLO)</th><th>Programme Learning Outcomes (PLO)</th><th>Evaluation</th></tr></thead><tbody><tr><td>1</td><td>CLO-1</td><td>PLO-5</td><td>5%</td></tr><tr><td>2</td><td>CLO-1</td><td>PLO-5</td><td>5%</td></tr><tr><td>3</td><td>CLO-1</td><td>PLO-5</td><td>5%</td></tr><tr><td>4</td><td>CLO-2</td><td>PLO-5</td><td>5%</td></tr><tr><td>5</td><td>CLO-2</td><td>PLO-5</td><td>5%</td></tr><tr><td>6</td><td>CLO-2</td><td>PLO-5</td><td>5%</td></tr><tr><td>7</td><td>CLO-2</td><td>PLO-5</td><td>5%</td></tr><tr><td>8</td><td>CLO-2</td><td>PLO-5</td><td>20%</td></tr><tr><td>9</td><td>CLO-3</td><td>PLO-6</td><td>5%</td></tr><tr><td>10</td><td>CLO-3</td><td>PLO-6</td><td>5%</td></tr><tr><td>11</td><td>CLO-3</td><td>PLO-6</td><td>5%</td></tr></tbody></table>	Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation	1	CLO-1	PLO-5	5%	2	CLO-1	PLO-5	5%	3	CLO-1	PLO-5	5%	4	CLO-2	PLO-5	5%	5	CLO-2	PLO-5	5%	6	CLO-2	PLO-5	5%	7	CLO-2	PLO-5	5%	8	CLO-2	PLO-5	20%	9	CLO-3	PLO-6	5%	10	CLO-3	PLO-6	5%	11	CLO-3	PLO-6	5%
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12	CLO-4	PLO-6	5%
13	CLO-5	PLO-6	5%
14	CLO-5	PLO-6	5%
15	CLO-5	PLO-6	5%
16	CLO-5	PLO-6	10%

- Final index is defined as follow:

Index	Converted Score	Score Range
A	4.00	$85 \leq A \leq 100$
A-	3.75	$80 \leq A- < 85$
B+	3.50	$75 \leq B+ < 80$
B	3.00	$70 \leq B < 75$
B-	2.75	$65 \leq B- < 70$
C+	2.50	$60 \leq C+ < 65$
C	2.00	$55 \leq C < 60$
D	1.00	$40 \leq D < 55$
E	0.00	$0 \leq E < 40$

<b>Forms of Media</b>	Slides, Whiteboard, Statistical Software (SPSS/Excel/R), LCD Projector.
<b>Literature</b>	<ol style="list-style-type: none"><li>Weiss, N. A. (2015). Introductory statistics (10th ed.). Pearson.</li><li>Walpole, R, E. (2002). Probability and Statistics : for engineers &amp; scientist . USA: Pearson Education Inc</li><li>R Core Team (2020). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna</li></ol>
<b>Note</b>	based on the regulation of the minister of education and culture of Indonesia number 3 of 2020 concerning national higher education standards, it is state 1 CU equals to 170 minutes per week. Therefore, in one semester (16 weeks, including midterm a final exam) $1 \text{ CU} = 170 \times 16 = 2.720$ minutes or 45.3 hours. Therefore, workhours in $144 \text{ CU} \times 45.3 \text{ hours} = 6.523.2$ hours. Unesa decided that 1 ECTS with 144 CU, $6.523.2/229 \text{ ECTS} = 28.48$ hours, so that $1 \text{ CU} = 1.59 \text{ ECTS}$