



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

Undergraduate Program of Mathematics

Module Handbook

Module Name:	Foundations of Mathematics Dasar-Dasar Matematika
Module Level:	Sarjana (S-1) / Undergraduate
Abbreviation, if applicable:	8420203043
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	1 / First year
Module Coordinator(s):	Prof. Dr. Masriyah, M.Pd
Lecturer(s):	Prof. Dr. Tatag Yuli Eko Siswono., M.Pd. Nina Rinda Prihartiwi., M.Pd. Dr. Ali Shodikin., M.Pd.
Language:	Indonesia
Classification within the curriculum:	Compulsory course/ elective studies
Teaching format/class hours per week during the semester	Teaching format: lectures, tutorial assignment, and individual Study/3 x 170 minutes = 510 minutes = 8.5 hours lectures
Workload:	16 weeks per semester consisting of: <ul style="list-style-type: none">• 1 hour lectures (1 x 50 minutes) per week,• 1 hours assignments (1 x 60 minutes) per week,➤ 1 hours individual study (1 x 60 minutes) per week, Total workload : $16 \times 3 \times 170$ minutes = 8,160 minutes = 136 hours=4.8 ECTS*
Credit Point:	3
Requirements:	N/A



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Learning Goals :	<p>PLO-5: Possesses basic mathematical knowledge to solve mathematical problems and their applications in education.</p> <p>PLO-6: Masters the principles of mathematical knowledge to support mathematical thinking skills in solving mathematical problems.</p>																																																																				
Content:	<p>Studying the characteristics of mathematics, its deductive-axiomatic system and structure, logical operations, quantifiers, reasoning processes, sets, relations, and functions, through active, case-based learning supported by ICT, using lecture, demonstration, questioning, and discussion methods.</p>																																																																				
Study/exam achievements	<ul style="list-style-type: none"> • Students are considered competent and pass if the final score is at least 55 or C. • Final score is calculated as follows: <table border="1" data-bbox="574 1070 1380 1917"> <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-6</td><td>5</td></tr> <tr><td>2</td><td>CLO-2</td><td>PLO-5</td><td>5</td></tr> <tr><td>3</td><td>CLO-2</td><td>PLO-5</td><td>3</td></tr> <tr><td>4</td><td>CLO-3</td><td>PLO-5</td><td>10</td></tr> <tr><td>5</td><td>CLO-4</td><td>PLO-5</td><td>5</td></tr> <tr><td>6</td><td>CLO-4</td><td>PLO-5</td><td>5</td></tr> <tr><td>7</td><td>CLO-5</td><td>PLO-6</td><td>10</td></tr> <tr><td>8</td><td>CLO-6</td><td>PLO-6</td><td>5</td></tr> <tr><td>9</td><td>CLO-6</td><td>PLO-6</td><td>5</td></tr> <tr><td>10</td><td>CLO-6</td><td>PLO-6</td><td>10</td></tr> <tr><td>11</td><td>CLO-7</td><td>PLO-6</td><td>5</td></tr> <tr><td>12</td><td>CLO-7</td><td>PLO-6</td><td>5</td></tr> <tr><td>13</td><td>CLO-7</td><td>PLO-6</td><td>10</td></tr> <tr><td>14</td><td>CLO-10</td><td>PLO-5</td><td>5</td></tr> <tr><td>15</td><td>CLO-8</td><td>PLO-5</td><td>10</td></tr> <tr><td>16</td><td>CLO-9</td><td>PLO-5</td><td>2</td></tr> </tbody> </table> • Final index is defined as follow: 	Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation (%)	1	CLO-1	PLO-6	5	2	CLO-2	PLO-5	5	3	CLO-2	PLO-5	3	4	CLO-3	PLO-5	10	5	CLO-4	PLO-5	5	6	CLO-4	PLO-5	5	7	CLO-5	PLO-6	10	8	CLO-6	PLO-6	5	9	CLO-6	PLO-6	5	10	CLO-6	PLO-6	10	11	CLO-7	PLO-6	5	12	CLO-7	PLO-6	5	13	CLO-7	PLO-6	10	14	CLO-10	PLO-5	5	15	CLO-8	PLO-5	10	16	CLO-9	PLO-5	2
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	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	$0 \leq E < 40$
Forms of Media	Slides and LCD projectors, whiteboard		
Literature	<ol style="list-style-type: none"> Masriyah, 2017. <i>Dasar- Dasar Matematika</i>. Surabaya: Unipress Unesa. Yunus, M. 2007. <i>Logika: Suatu Pengantar</i> . Yogyakarta: Graha Ilmu Kunnen, K. 2007. <i>The Foundation of Mathematics</i> . Stoll, R. R. 1979. <i>Set Theory and Logic</i> . New York: Dover Publication, Inc. 		
Note	<p>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 CU $\times 45.3$ hours = 6.523,2 hours. Unesa decided that 1 ECTS with 144 CU, $6.523,2/229 \text{ ECTS} = 28.48$ hours, so that $1 \text{ CU} = 1.59 \text{ ECTS}$</p>		