



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:	Development of Instructional Media
Module Level:	Sarjana (S-1) / Undergraduate
Abbreviation, if applicable:	1000002054
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	6 th / Third year
Module Coordinator(s):	Dr. Susanah, M.Pd.
Lecturer(s):	Dr. Janet Trineke Manoy, M.Pd. Dr. Ismail, M.Pd. Dr. Susanah, M.Pd. Dr. Siti Khabibah, M.Pd. Ika Kurniasari, S.Pd., M.Pd. Dr. Sri Suryanti, S.Pd., M.Si. Nurus Saadah, S.Pd., M.Pd. Dr. Sugi Hartono, M.Pd. Dr. Nonik Indrawatiningsih, 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/ 2 x 170 minutes = 340 minutes = 5.7 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 x 2 x 170 minutes = 5,440 minutes = 90,67 hours = 3.1 ECTS*
Credit Point:	2
Requirements:	N/A



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Learning Goals:	<p>PLO 3: Develop logical, critical, systematic, and creative thinking in carrying out specific work in their area of expertise and in accordance with the work competency standards of the relevant field.</p> <p>PLO 7: Communicate ideas and research results effectively, orally, and in writing.</p> <p>PLO 8: Make decisions based on data/information in completing tasks that are the student's responsibility and evaluating the work that has been done.</p> <p>PLO 10: Demonstrate pedagogical knowledge in designing, implementing and evaluating mathematics learning.</p>																																																												
Content:	Study the definitions, types/classifications, and functions of instructional media, as well as the fundamentals of media development; and be able to select, design, and produce instructional media by utilizing the surrounding environment (contextual) and IT/digital/AR/VR through individual and group project-based assignments.																																																												
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><tr><th>Week</th><th>Course Learning Outcomes (CLO)</th><th>Programme Learning Outcomes (PLO)</th><th>Evaluation (%)</th></tr><tr><td>1</td><td>CLO-1</td><td>PLO-3</td><td>3</td></tr><tr><td>2</td><td>CLO-1</td><td>PLO-3</td><td>3</td></tr><tr><td>3</td><td>CLO-4</td><td>PLO-10</td><td>3</td></tr><tr><td>4</td><td>CLO-1</td><td>PLO-3</td><td>3</td></tr><tr><td>5</td><td>CLO-2</td><td>PLO-8</td><td>3</td></tr><tr><td>6</td><td>CLO-2</td><td>PLO-8</td><td>5</td></tr><tr><td>7</td><td>CLO-2</td><td>PLO-8</td><td>5</td></tr><tr><td>8</td><td>CLO-3</td><td>PLO-7</td><td>10</td></tr><tr><td>9</td><td>CLO-2</td><td>PLO-8</td><td>5</td></tr><tr><td>10</td><td>CLO-2</td><td>PLO-8</td><td>5</td></tr><tr><td>11</td><td>CLO-4</td><td>PLO-10</td><td>5</td></tr><tr><td>12</td><td>CLO-2</td><td>PLO-8</td><td>10</td></tr><tr><td>13</td><td>CLO-2</td><td>PLO-8</td><td>10</td></tr><tr><td>14</td><td>CLO-1</td><td>PLO-3</td><td>10</td></tr></table>	Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation (%)	1	CLO-1	PLO-3	3	2	CLO-1	PLO-3	3	3	CLO-4	PLO-10	3	4	CLO-1	PLO-3	3	5	CLO-2	PLO-8	3	6	CLO-2	PLO-8	5	7	CLO-2	PLO-8	5	8	CLO-3	PLO-7	10	9	CLO-2	PLO-8	5	10	CLO-2	PLO-8	5	11	CLO-4	PLO-10	5	12	CLO-2	PLO-8	10	13	CLO-2	PLO-8	10	14	CLO-1	PLO-3	10
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	<table><tr><td>15</td><td>CLO-1</td><td>PLO-3</td><td>10</td></tr><tr><td>16</td><td>CLO-3</td><td>PLO-7</td><td>10</td></tr></table> <ul style="list-style-type: none">Final index is defined as follow:<table><tr><td>Index</td><td>Converted Score</td><td>Score Range</td></tr><tr><td>A</td><td>4.00</td><td>$85 \leq A \leq 100$</td></tr><tr><td>A-</td><td>3.75</td><td>$80 \leq A- < 85$</td></tr><tr><td>B+</td><td>3.50</td><td>$75 \leq B+ < 80$</td></tr><tr><td>B</td><td>3.00</td><td>$70 \leq B < 75$</td></tr><tr><td>B-</td><td>2.75</td><td>$65 \leq B- < 70$</td></tr><tr><td>C+</td><td>2.50</td><td>$60 \leq C+ < 65$</td></tr><tr><td>C</td><td>2.00</td><td>$55 \leq C < 60$</td></tr><tr><td>D</td><td>1.00</td><td>$40 \leq D < 55$</td></tr><tr><td>E</td><td>0.00</td><td>$0 \leq E < 40$</td></tr></table>	15	CLO-1	PLO-3	10	16	CLO-3	PLO-7	10	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	$0 \leq E < 40$
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Forms of Media	Slides and LCD projectors, whiteboard																																						
Literature	<ol style="list-style-type: none">Fardah, D. K., Khabibah, S., Manoy, J. T., Susanah., (2021). Media Pembelajaran Matematika. Surabaya: Unesa University PressSmaldino, S.E., Deborah L.L., and James D.R., 2011. Instructional Technology and Media for Learning: Teknologi Pembelajaran dan Media untuk Belajar . Jakarta: KencanaBuku Matematika SMP/SMA/SMK sesuai kurikulum yang berlaku.Fikri H., & Madona, A. S., (2018). Pengembangan Media Pembelajaran Berbasis Multimedia Interaktif. Yogyakarta: Samudra BiruHilir, A., (2021). Pengembangan Teknologi Pendidikan. Peranan pendidik dalam menggunakan media pembelajaran. Klaten: Penerbit LakeishaManoy, Janet Trineke. (2021). Flipbook Media Pembelajaran Matematika SMP Kelas VIII (Manual)																																						
Note	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																																						



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	that 1 ECTS with 144 CU, $6.523,2/229 \text{ ECTS} = 28.48 \text{ hours}$, so that 1 CU = 1.59 ECTS
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