



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
Handbook**

Module

Module Name:	Scientific Writing Penulisan Karya Ilmiah
Module Level:	Sarjana (S-1) / Undergraduate
Abbreviation, if applicable:	8420202169
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	6 th / Third year
Module Coordinator(s):	Prof. Dr. Tatag Yuli Eko Siswono, M.Pd.
Lecturer(s):	Prof. Dr. Tatag Yuli Eko Siswono, S.Pd., M.Pd. Dr. Ali Shodikin, S.Pd., M.Pd. Dr. Nia Wahyu Damayanti, S.Pd., M.Pd. Dr. Nonik Indrawatiningsih, M.Pd. Dr. Yurizka Melia Sari, M.Pd. Novita Vindri Harini, 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: • 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:	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. PLO-9: Demonstrate knowledge and skills in conducting mathematics education research. PLO-10: Make data-based decisions in completing student assignments and evaluating work done. PLO-11: Communicate research ideas and results rationally, effectively, and innovatively.																																																								
Content:	Studying various concepts and theories related to scientific writing techniques, and practicing writing scientific papers using the concepts/theories studied. This includes the nature and characteristics of scientific papers, preparation for writing scientific papers, use of literature in writing scientific papers, components of scientific papers, tips for writing scientific papers, review, finalization, and dissemination of scientific papers through active, task-based learning.																																																								
Study/exam achievements	- 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-9</td><td>5</td></tr><tr><td>2</td><td>CLO-1</td><td>PLO-9</td><td>5</td></tr><tr><td>3</td><td>CLO-2</td><td>PLO-10</td><td>5</td></tr><tr><td>4</td><td>CLO-2</td><td>PLO-10</td><td>5</td></tr><tr><td>5</td><td>CLO-2</td><td>PLO-10</td><td>5</td></tr><tr><td>6</td><td>CLO-4</td><td>PLO-3</td><td>5</td></tr><tr><td>7</td><td>CLO-1</td><td>PLO-9</td><td>5</td></tr><tr><td>8</td><td>CLO-4</td><td>PLO-3</td><td>10</td></tr><tr><td>9</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>10</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>11</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>12</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>13</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr></table>	Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation (%)	1	CLO-1	PLO-9	5	2	CLO-1	PLO-9	5	3	CLO-2	PLO-10	5	4	CLO-2	PLO-10	5	5	CLO-2	PLO-10	5	6	CLO-4	PLO-3	5	7	CLO-1	PLO-9	5	8	CLO-4	PLO-3	10	9	CLO-3	PLO-11	5	10	CLO-3	PLO-11	5	11	CLO-3	PLO-11	5	12	CLO-3	PLO-11	5	13	CLO-3	PLO-11	5
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	<table><tr><td>14</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>15</td><td>CLO-3</td><td>PLO-11</td><td>5</td></tr><tr><td>16</td><td>CLO-3</td><td>PLO-11</td><td>20</td></tr></table>	14	CLO-3	PLO-11	5	15	CLO-3	PLO-11	5	16	CLO-3	PLO-11	20																		
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	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>	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	1. Janne, J. 2005. A Guide to Scientific Writing. AIVI Academic Press 2. Matthews, J.R & Matthews, R.W. 2015. Successful Scientific Writing. Cambridge University Press 3. Dwiloka, B. & Riana, R. 2005. Teknik Menulis Karya Ilmiah. Jakarta: Rineka Cipta 4. Ekawati, R., Kohar, A. W., Imah, E. M., Amin, S. M., & Fiangga, S. 2019. Students' Cognitive Processes in Solving Problem Related to the Concept of Area Conservation. <i>Journal on Mathematics Education</i>, 10(1), 21-36. 5. Shodikin, A., Ekawati, R., Purnomo, H., & Abdullah, A. H. (2024). Failure in Constructing the Mathematical Model in Real-World Problems. <i>TEM Journal</i>, 13(4). 6. Shodikin, A., Purwanto, P., Subanji, S., & Sudirman, S. 2021. Students' thinking process when using abductive reasoning in problem solving. <i>Acta Scientiae</i>, 23(2), 58-87. 7. Ekawati, A., Siswono, T. Y. E., & Lukito, A. 2025. Collective argumentation in mathematics education: A bibliometric analysis. <i>Multidisciplinary Reviews</i>, 8(6), 2025183-2025183. 8. Other international article journal																														



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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) $1 \text{ CU} = 170 \times 16 = 2.720 \text{ minutes}$ or 45.3 hours. Therefore, workhours in 144 CU $\times 45.3 \text{ hours} = 6.523,2 \text{ hours}$. Unesa decided that 1 ECTS with 144 CU, $6.523,2/229 \text{ ECTS} = 28.48 \text{ hours}$, so that $1 \text{ CU} = 1.59 \text{ ECTS}$
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