



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:	Digital Literacy Literasi Digital
Module Level:	Sarjana (S-1) / Undergraduate
Abbreviation, if applicable:	1000002046
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	5 / Third year
Module Coordinator(s):	MBKM Team
Lecturer(s):	MBKM Team
Language:	Indonesian
Classification within the curriculum:	Compulsory course/ elective studies
Teaching format/class hours per week during the semester	<p>Teaching format: lectures (face to face and synchronous online), case studies, small group discussion, hands-on practice, presentations, individual assignments, and a collaborative final project</p> <p>Class hours per week: 2 x 170 minutes = 340 minutes (5.67 hours), of which 2 x 50 minutes are lectures</p>
Workload:	<p>16 weeks per semester consisting of:</p> <ul style="list-style-type: none"> • 2 hours lectures (2 x 50 minutes) per week, • 2 hours structured assignments (2 x 60 minutes) per week, • 2 hours independent study (2 x 60 minutes) per week, <p>Total workload: 16 x 2 x 170 minutes = 5,440 minutes = 90.67 hours = 3.18 ECTS*</p>
Credit Point:	2 CU (3.18 ECTS)
Requirements:	N/A



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Learning Goals :

Programme Learning Outcomes (PLO) addressed:

- PLO 1: Able to demonstrate the values of religion, nationality and national culture, as well as academic ethics in carrying out their duties
- PLO 2: Demonstrate a tough, collaborative, adaptive, innovative, inclusive, lifelong learner, and entrepreneurial character
- 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 4: Develop oneself sustainably and collaboratively

Course Learning Outcomes (CLO): after completing this module, students are able to:

- CLO-1: Apply the concept of digital literacy and use digital devices and information technology safely, ethically, and effectively in academic and professional contexts (PLO 1)
- CLO-2: Use a range of digital technologies, including cloud storage, file conversion, presentation tools, and online collaboration platforms, to support individual and team productivity (PLO 3)
- CLO-3: Apply academic writing conventions using journal or book templates and use reference management software such as Mendeley appropriately (PLO 3)
- CLO-4: Analyse technological developments, current digital issues, and regulations on electronic information and transactions, and formulate strategies to prevent digital risks in line with applicable law (PLO 2)
- CLO-5: Apply the basic concepts of the Internet of Things (IoT) and Artificial Intelligence (AI) in simple case studies to solve everyday problems (PLO 3)
- CLO-6: Design, implement, and present an innovative digital technology-based final project, and evaluate and reflect on their own learning for continuous improvement (PLO 4)



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Content:

Digital Literacy is a compulsory general course for all UNESA students. It equips students to take part in the digital world responsibly and productively: using the internet and social media wisely, finding and filtering information, and applying technology to education, academic writing, content creation, and collaborative projects. Topics include the concept and history of digital literacy, cyber ethics, current digital issues and online fraud prevention, hoax detection, multimedia presentation, cloud storage and file conversion, academic writing templates and reference management with Mendeley, e-commerce and digital payment, the Electronic Information and Transactions Law (UU ITE) and the Personal Data Protection Law (UU PDP), basic concepts of IoT and AI, Google productivity tools, introductory programming and simple app development, and a collaborative final project. Learning follows a case study model through practice, discussion, presentations, individual assignments, and a team final project.

**Study/exam
achievements**

- Students are considered competent and pass if the final score, calculated from participatory activities (56.5%), project/product assessment including the midterm portfolio project (20.5%), practical performance (3%), and the final written test (20%), is at least 55 or C.
- Final score is calculated as follows:

Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation
1	CLO-1	PLO-1	3%
2	CLO-4	PLO-2	3%
3	CLO-1	PLO-1	3%
4	CLO-1	PLO-1	3%
5	CLO-2	PLO-3	3%
6	CLO-2	PLO-3	3%
7	CLO-3	PLO-3	3%
8	CLO-6	PLO-4	20%



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	9	CLO-3	PLO-3	3%																													
	10	CLO-4	PLO-2	3%																													
	11	CLO-4	PLO-2	3%																													
	12	CLO-5	PLO-3	3%																													
	13	CLO-2	PLO-3	3%																													
	14	CLO-4	PLO-2	3%																													
	15	CLO-6	PLO-4	21%																													
	16	CLO-6	PLO-4	20%																													
	● 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
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C	2.00	$55 \leq C < 60$																															
D	1.00	$40 \leq D < 55$																															
E	0.00	$0 \leq E < 40$																															
Forms of Media	UNESA Learning Management System (LMS), Zoom, slides, LCD projector, Google Workspace (Docs, Sheets, Forms, Calendar, Meet), cloud storage, Mendeley, Photopea, MIT App Inventor, Python																																
Literature	<ol style="list-style-type: none">Isnur, S., et al. (2024). Literasi digital. Erlangga.Aguilera, E. (2022). Digital literacies and interactive media: A framework for multimodal analysis. Routledge.Alford, D. (2021). BGE S1-S3 computing science and digital literacy: Third and fourth levels.Bloch, J. (2021). Creating digital literacy spaces for multilingual writers. Multilingual Matters.Clark, R. C. (2013). Scenario-based e-learning: Evidence-based guidelines for online workforce learning. Pfeiffer.																																



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	<ol style="list-style-type: none">6. Eilu, E., et al. (2021). Digital literacy and socio-cultural acceptance of ICT in developing countries. Springer.7. Fox, N. M. (2022). Digital visual literacy. ABC-CLIO.8. Hays, L., & Kammer, J. (2021). Integrating digital literacy in the disciplines. Taylor & Francis.9. Mills, K. A., et al. (2022). Literacy for digital futures: Mind, body, text. Routledge.10. Tim E-Learning. (2018). Pengembangan e-learning. Unipress Unesa.11. Van de Wiele, B. (2022). Adobe Photoshop, Illustrator, and InDesign collaboration and workflow. Adobe Press.
Note	<p>*Based on the Regulation of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 53 of 2023 on Quality Assurance in Higher Education, 1 credit unit (CU) corresponds to 45 hours of learning per semester. UNESA implements this as 170 minutes per week over 16 weeks, including the midterm and final examinations: $1 \text{ CU} = 170 \times 16 = 2,720$ minutes or 45.3 hours. The total workload of 144 CU is therefore $144 \times 45.3 = 6,523.2$ hours. UNESA sets this workload as equivalent to 229 ECTS, so that $1 \text{ ECTS} = 6,523.2 / 229 = 28.48$ hours and $1 \text{ CU} = 1.59 \text{ ECTS}$.</p>