



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:	School Curriculum Analysis Analisis Kurikulum Sekolah
Module Level:	Sarjana (S-1) / Undergraduate
Abbreviation, if applicable:	1000002051
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	6 / Third year
Module Coordinator(s):	Dr. Endah Budi Rahaju, M.Pd.
Lecturer(s):	Prof. Dr. Masriyah, M.Pd. Prof. Dr. Rini Setianingsih, M.Kes. Dr. Endah Budi Rahaju, M.Pd. Dr. Ismail, M.Pd. Ika Kurniasari, S.Pd., M.Pd. Yulia Izza El Milla, S.Pd., M.Pd. Liza Puspita Yanti, S.Pd., MAE.
Language:	Indonesian
Classification within the curriculum:	Compulsory course/ elective studies
Teaching format/class hours per week during the semester	Teaching format: lectures, collaborative document and textbook analysis, case-based discussion, problem-based learning, and project-based learning with student presentations Class hours per week: 2 x 170 minutes = 340 minutes (5.67 hours), of which 2 x 50 minutes are lectures
Workload:	16 weeks per semester consisting of: <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, Total workload: 16 x 2 x 170 minutes = 5,440 minutes = 90.67 hours = 3.18 ECTS*



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Credit Point:	2 CU (3.18 ECTS)
Requirements:	School Curriculum
Learning Goals :	<p>Programme Learning Outcomes (PLO) addressed:</p> <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 6: Design, implement and evaluate mathematics learning using IT</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> <p>Course Learning Outcomes (CLO): after completing this module, students are able to:</p> <p>CLO-1: Critically analyse the rationale, theoretical models, policy context, and coherence of the school mathematics curriculum, including the learning progression of essential mathematical ideas across phases (PLO 3, PLO 10)</p> <p>CLO-2: Analyse how the curriculum is enacted, from the intended to the implemented and the attained curriculum, by examining teaching modules, textbooks, and classroom tasks using task analysis and cognitive demand frameworks (PLO 3, PLO 8)</p> <p>CLO-3: Evaluate the alignment among learning outcomes, instruction, and assessment (including national and international assessment frameworks) using systematic alignment methods, and make data-based decisions on curriculum quality (PLO 8, PLO 10)</p> <p>CLO-4: Design technology-supported, curriculum-based learning</p>



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	<p>resources, including task sequences and hypothetical learning trajectories, that respond to the findings of a curriculum analysis (PLO 6, PLO 10)</p> <p>CLO-5: Conduct a small-scale curriculum analysis study, and communicate the findings and a curriculum improvement proposal in a written report and an oral presentation (PLO 6, PLO 7)</p>																
Content:	<p>This course builds on School Curriculum and moves from knowing what the curriculum says to examining it critically with evidence. Topics are curriculum theory and models, the policy context of the national mathematics curriculum, and the coherence and learning progression of essential mathematical ideas across phases; curriculum enactment, in which the intended, implemented, and attained curriculum are examined through teaching modules, textbooks, and the cognitive demand of tasks; alignment among learning outcomes, instruction, and assessment, including national and international assessment frameworks; curriculum evaluation and data-based decision making; and the design of technology-supported task sequences and learning trajectories that respond to the findings. Learning combines document and textbook analysis, case discussions, and a small-scale curriculum analysis study that students report, present, and defend with evidence.</p>																
Study/exam achievements	<ul style="list-style-type: none">Students are considered competent and pass if the final score, calculated from weekly tasks, document analysis reports, and participation (50%), the midterm formative examination (20%), and the project-based final formative examination (30%), 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, PLO-10</td><td>3%</td></tr><tr><td>2</td><td>CLO-1</td><td>PLO-3, PLO-10</td><td>3%</td></tr><tr><td>3</td><td>CLO-1</td><td>PLO-3, PLO-10</td><td>3%</td></tr></table>	Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation	1	CLO-1	PLO-3, PLO-10	3%	2	CLO-1	PLO-3, PLO-10	3%	3	CLO-1	PLO-3, PLO-10	3%
Week	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)	Evaluation														
1	CLO-1	PLO-3, PLO-10	3%														
2	CLO-1	PLO-3, PLO-10	3%														
3	CLO-1	PLO-3, PLO-10	3%														



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4	CLO-1	PLO-3, PLO-10	3%
5	CLO-2	PLO-3, PLO-8	3%
6	CLO-2	PLO-3, PLO-8	3%
7	CLO-2	PLO-3, PLO-8	3%
8	CLO-2	PLO-3, PLO-8	20%
9	CLO-3	PLO-8, PLO-10	4%
10	CLO-3	PLO-8, PLO-10	4%
11	CLO-3	PLO-8, PLO-10	4%
12	CLO-4	PLO-6, PLO-10	4%
13	CLO-4	PLO-6, PLO-10	4%
14	CLO-5	PLO-6, PLO-7	4%
15	CLO-5	PLO-6, PLO-7	5%
16	CLO-5	PLO-6, PLO-7	30%

- 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	$0 \leq E < 40$

Forms of Media

Slides, LCD projector, whiteboard, UNESA Learning Management System (LMS), curriculum documents and school textbooks (print and digital), GeoGebra, Desmos, Google Workspace

Literature

1. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2024). Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 12 Tahun 2024 tentang Kurikulum pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan



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Jenjang Pendidikan Menengah.

2. Badan Standar, Kurikulum, dan Asesmen Pendidikan. (2022). Capaian pembelajaran mata pelajaran matematika pada kurikulum merdeka (current version). Kemendikbudristek.
3. Stein, M. K., Remillard, J., & Smith, M. S. (2007). How curriculum influences student learning. In F. K. Lester (Ed.), *Second handbook of research on mathematics teaching and learning* (pp. 319-369). Information Age Publishing.
4. Remillard, J. T., & Heck, D. J. (2014). Conceptualizing the curriculum enactment process in mathematics education. *ZDM Mathematics Education*, 46(5), 705-718.
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6. Simon, M. A. (1995). Reconstructing mathematics pedagogy from a constructivist perspective. *Journal for Research in Mathematics Education*, 26(2), 114-145.
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10. OECD. (2023). *PISA 2022 assessment and analytical framework*. OECD Publishing.
11. Mullis, I. V. S., & Martin, M. O. (Eds.). (2017). *TIMSS 2019 assessment frameworks*. TIMSS & PIRLS International Study Center, Boston College.
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13. Goos, M., Stillman, G., & Vale, C. (2007). *Teaching secondary school mathematics: Research and practice for the 21st century*. Allen & Unwin.
14. Sukmadinata, N. S. (2013). *Pengembangan kurikulum: Teori dan praktek*. Remaja Rosdakarya.



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	<p>15. Sultan, A., & Artzt, A. F. (2011). The mathematics that every secondary school math teacher needs to know. Routledge.</p> <p>16. Sa'diyah, M., Sa'dijah, C., & Susiswo, S. (2024). Students' ability to formulate situation mathematically from context-based mathematics problems. TEM Journal, 13(2), 1443-1451. https://doi.org/10.18421/TEM132-58</p>
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>