<table>
<tr><td>Module designation</td><td>Philosophy of Mathematics Education
Indonesian title: Filsafat Pendidikan Matematika
Course code: 8420202057</td></tr>
<tr><td>Semester(s) in which the module is taught</td><td>Semester 7 (Fourth year)</td></tr>
<tr><td>Person responsible for the module</td><td>Coordinator: Prof. Dr. Tatag Yuli Eko Siswono, M.Pd
Teaching staff: Prof. Dr. Tatag Yuli Eko Siswono, M.Pd; Dr. Abdul Haris Rosyidi, M.Pd</td></tr>
<tr><td>Language</td><td>Indonesian</td></tr>
<tr><td>Relation to curriculum</td><td>Elective</td></tr>
<tr><td>Teaching methods</td><td>Lectures, tutorial assignments, and individual study
Media and tools: Slides and LCD projectors, whiteboard</td></tr>
<tr><td>Workload (incl. contact hours, self-study hours)</td><td>(Estimated) total workload: 2 CU × 170 minutes × 16 weeks = 5,440 minutes = 90.67 hours (≈ 3.18 ECTS)
Contact hours: lectures, 2 × 50 minutes per week × 16 weeks = 26.67 hours (class hours per week: 340 minutes = 5.67 hours, including structured activities)
Private study including examination preparation: structured assignments, 2 × 60 minutes per week × 16 weeks = 32.00 hours; independent study, 2 × 60 minutes per week × 16 weeks = 32.00 hours (total 64.00 hours)</td></tr>
<tr><td>Credit points</td><td>2 CU (3.18 ECTS)
1 CU = 170 minutes per week × 16 weeks = 45.3 hours; 1 ECTS = 28.48 hours (144 CU = 229 ECTS), so 1 CU = 1.59 ECTS (UNESA Rector's Decree No. 736/HK/KM/2023).</td></tr>
<tr><td>Required and recommended prerequisites for joining the module</td><td>None</td></tr>
<tr><td>Module objectives/intended learning outcomes</td><td>Programme learning outcomes (PLO) addressed:
PLO-6: Demonstrate mathematical knowledge and insight.
PLO-7: Demonstrate pedagogical knowledge in designing, implementing and evaluating mathematics learning.
PLO-8: Design, implement and evaluate mathematics learning using IT.</td></tr>
<tr><td>Content</td><td>Examine the nature of mathematics, various perspectives on the field, the nature of mathematical truth and characteristics, the aesthetics of mathematics, its role within learning theories, and the fundamental principles of teaching and learning mathematics; furthermore, apply philosophical principles to the teaching and learning of mathematics through active, discussion-based classroom instruction and the utilization of diverse learning resources.</td></tr>
<tr><td>Examination forms</td><td>Final score is calculated from the weekly assessment scheme below (CLO/PLO addressed and weight of each assessment):
<table>
<tr><th>Week</th><th>CLO</th><th>PLO</th><th>Weight (%)</th></tr>
<tr><td>1</td><td>CLO-1</td><td>PLO-6</td><td>3</td></tr>
<tr><td>2</td><td>CLO-1</td><td>PLO-6</td><td>3</td></tr>
<tr><td>3</td><td>CLO-2</td><td>PLO-7</td><td>4</td></tr>
<tr><td>4</td><td>CLO-2</td><td>PLO-7</td><td>4</td></tr>
</table></td></tr>
</table>

	5	CLO-3	PLO-8	0
	6	CLO-3	PLO-8	4
	7	CLO-3	PLO-8	4
	8	CLO-3	PLO-8	20
	9	CLO-3	PLO-8	4
	10	CLO-4	PLO-8	4
	11	CLO-5	PLO-8	4
	12	CLO-5	PLO-8	4
	13	CLO-5	PLO-8	4
	14	CLO-5	PLO-8	4
	15	CLO-5	PLO-8	4
	16	CLO-5	PLO-8	30

Study and examination requirements

Students are considered competent and pass if the final score is at least 55 or C.

Final index (grade conversion):

Index	Converted score	Score range (A = final score)
A	4.00	85 ≤ A ≤ 100
A-	3.75	80 ≤ A < 85
B+	3.50	75 ≤ A < 80
B	3.00	70 ≤ A < 75
B-	2.75	65 ≤ A < 70
C+	2.50	60 ≤ A < 65
C	2.00	55 ≤ A < 60
D	1.00	40 ≤ A < 55
E	0.00	0 ≤ A < 40

Reading list

1. Siswono, T. 2014. Filsafat Pendidikan Matematika dan Sejarah Matematika. Modul PLPG UNESA
2. FitzSimmons, James A. 2014. Philosophy of Teaching and Learning Mathematics. http://plato.wilmington.edu/faculty/jfitzs/tchg_phi.htm.
3. Ernest, Paul. Tanpa tahun. What is the Philosophy of Mathematics Education http://people.exeter.ac.uk/PErnest/ pome18/PhoM_for_ICME_04.htm
4. Soedjadi, R. 1999. Kiat-Kiat Pendidikan Matematika. Dirjen Dikti, Depdikbud
5. Philosophy of Mathematics Education Journal ISSN 1465- 2978 (Online)
6. Ernest, P. 1991. The Philosophy of Mathematics Education, London: Falmer Press.