Master Program of Mathematics Education **Module Handbook**

Module Name:	Innovations in Mathematics Teaching
Module Level:	Master (S-2)
Abbreviation, if applicable:	
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	1 / First year
Module Coordinator(s):	Dr. Ismail, M.Pd.
Lecturer(s):	1. Dr. Ismail, M.Pd. 2. Dr. Susanah, 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 × 240 minutes = 480 minutes = 8 hours lectures
Workload:	15 weeks per semester consisting of: • 1 hour lecture (1 × 50 minutes) per week, • 2 hours assignments (2 × 45 minutes) per week, • 2 hours individual study (2 × 50 minutes) per week, Total workload: 14 × 2 × 240 minutes = 6,720 minutes ≈ 4.48 ECTS*
Credit Point:	2
Requirements:	N/A
Learning Goals :	**Knowledge (KNO-2)** CLO-1: able to demonstrate knowledge of the concepts of innovation in teaching mathematics. **Skill (SKI-2)** CLO-2: able to design an effective and innovative mathematics teaching. **Competency (COM-1)**

<table>
<tr><td></td><td>CLO-3: able to communicate ideas and innovative designs for teaching mathematics effectively in oral form through class presentations and in writing of the form of papers/reports.

Social (SOC-1)
CLO-4: able to work effectively independently to complete the task of designing innovative mathematics teaching.</td></tr>
<tr><td>Content:</td><td>Studying insights, knowledge, and skills needed in developing innovative mathematics teaching. The topics will cover the basic concepts of innovation, the history of innovation in mathematics teaching, approaches/models/strategies/methods of teaching mathematics and their level of innovation, media and multimedia in learning mathematics, examples of innovations in mathematics teaching, the process of adapting innovations and creating innovations.</td></tr>
<tr><td>Study/exam achievements</td><td>• Students are considered competent and pass if the final score calculated from the score of midterm exam, assignments, participation, and final exam is at least 55 or C.
• Final score is calculated as follows:
20% midterm exam + 30% assignments + 20% participation + 30% final exam
• Final index is defined as follows:
<table>
<tr><th>Index</th><th>Converted Score</th><th>Score Range</th></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></td></tr>
<tr><td>Media employed</td><td>Slides and LCD projectors, white board</td></tr>
<tr><td>Reading list</td><td>[1] Wilson A.C, Robutti O., & Sinclair N. 2013. The Mathematics Teacher in the Digital Era: An International Perspective on Technology Focused Professional Development. Springer.
[2] Adams, Dennis., Hamm, Marry. 2010. Demystify math, science, and technology : creativity, innovation, and problem Solving. Rowman & Littlefield.</td></tr>
</table>

	[3] Greene, L. M. 2001. *Internship: The Art of Innovation*. John Wiley & Sons [4] Siswono, T. Y. E. 2018. *Pembelajaran Matematika Berbasis Pengajuan Masalah: Fokus Pada Berpikir Kritis dan Berpikir Kreatif*. Rosdakarya [5] Vincent-Lancrin, S., Urgel, J., Kar, S., & Jacotin, G. 2019. Measuring Innovation in Education 2019: What Has Changed in the Classroom? *Educational Research and Innovation.* OECD Publishing. https://doi.org/10.1787/9789264311671-en.
Note	*Total hours per 1 credit in 1 semester = {(1 credit × 240 minutes × 14 weeks)/60 minutes} = 56 hours. Each ECTS equals 25 hours, so 1 credit in 1 semester is equivalent to 2.24 ECTS.
Last amendment	January 2023