Module Description of Learning and Teaching

Module Name	:	Learning and Teaching
Module Level	:	Bachelor
Code, if applicable	:	23H01130603
Subtitle, if applicable	:	-
Courses, if applicable	:	Learning and Teaching
Semester(s) in which the module is taught	:	5 (Fifth Semester)
Module coordinator(s)	:	Budi Nurwahyu
Lecturer(s)	:	Budi Nurwahyu
Language	:	Bahasa (Indonesian language)
Relation to curriculum	:	Elective course in third year for Bachelor degree in Mathematics
Type of teaching/teaching method	:	Lecturing, Small Group Discussion, Cooperative Learning, Self-Directed Learning
Contact hours	:	150 minutes lectures per week, 180 minutes structured activities per week, and 180 minutes independent study per week
Workload	:	Total workload is 135 hours per semester which consists of 40 hours per semester for Learning and Teaching, 47.5 hours per semester for Self-Study, and 47.5 hours per semester for Structured Works
Credit points	:	3 (4.8 ECTS)
Requirements according to the examination regulations	:	Students are required to attend at least 80% of the total meetings which is recorded via the attendance menu at https://sikola-v2.unhas.ac.id/, complete all mandatory assignments, and obtain permission from the lecturer to participate in the written examination.
Recommended prerequisites	:	Principle of Mathematics understanding, Mathematically Thinking, Analysis of Mathematics objects, Argumentation and proving of mathematics, Mathematics Problem solving skill, Planning and executing teaching of mathematics, Evaluation principle of teaching of mathematics, Teaching practice of mathematics.
Module objectives/intended learning outcomes	:	After the completion of this module, the student will be able to: CLO 1. identify and increase to mathematics understanding and mathematically thinking of students; CLO 2. identify and utilize to mathematics objects for enhancing mathematics understanding and cognitive style of students; CLO 3. utilize to principles of mathematics proving and problem solving; CLO 4. plan and execute to teaching of mathematics effectively, innovative and creative.

<table>
<tr><td></td><td></td><td>The following is the mapping of the ILO and the CLO of this course:
<table>
<tr><th></th><th>ILO 2</th><th>ILO 7</th><th>ILO 8</th><th>ILO 9</th></tr>
<tr><td>CLO 1</td><td></td><td>X</td><td></td><td>X</td></tr>
<tr><td>CLO 2</td><td>X</td><td>X</td><td></td><td></td></tr>
<tr><td>CLO 3</td><td>X</td><td>X</td><td></td><td></td></tr>
<tr><td>CLO 4</td><td></td><td></td><td>X</td><td>X</td></tr>
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<tr><td>Content</td><td>:</td><td>In this module, the students will know, describe, explain and practice: Principle of Mathematics understanding, Mathematically Thinking, Analysis of Mathematics objects, Argumentation and proving of mathematics, Mathematics Problem solving skill, Planning and executing teaching of mathematics, Evaluation principle of teaching of mathematics, Teaching practice of mathematics.</td></tr>
<tr><td>Study and examination requirements</td><td>:</td><td>Study and examination requirements:
Students must attend 15 minutes before the class starts.
Students must switch off all electronic devices.
Students must inform the lecturer if they will not attend the class due to sickness, etc.
Students must submit all class assignments before the deadline.
Students must attend the exam to get final grade.</td></tr>
<tr><td>Exams and assessment formats</td><td>:</td><td>Participants are marked based on their performance in theory: Written Exam (55%), Assignments (15%), and Presentations (30%).

Assignments assess student's ability to apply concepts independently. Presentations evaluate oral communication, organization of ideas, and confidence in delivering academic material. The Written Exam assesses comprehension and synthesis of all materials discussed during the semester. Altogether, these components account for 100% of the final grade.

Students are marked based on their percentage of points obtained and based on the following grade scale:
<table>
<tr><th>Percentage of Achievement</th><th>Grade</th><th>Conversion Value</th></tr>
<tr><td>85 – 100</td><td>A</td><td>4.00</td></tr>
<tr><td>80 - <85</td><td>A-</td><td>3.75</td></tr>
<tr><td>75 - < 80</td><td>B+</td><td>3.5</td></tr>
<tr><td>70 - < 75</td><td>B</td><td>3.0</td></tr>
<tr><td>65 - < 70</td><td>B-</td><td>2.75</td></tr>
<tr><td>60 - < 65</td><td>C+</td><td>2.5</td></tr>
<tr><td>50 - < 60</td><td>C</td><td>2.00</td></tr>
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			40 - < 50	D	1.00	
			< 40	E	0.00	
Reading list	:	1. David Tall, Advanced Mathematical Thinking, ISBN 978-0-306-47203-9, Springer, 1991. 2. Alan H Schoenfeld, Mathematical Problem solving, ISBN 012-628870-4, Academic Press Inc Ltd, London, 1985. 3. Steven G. Krantz, How to Teach Mathematics, American Mathematical Society, 2 edition, 1999.				
Last revision date	:	July 28th, 2025				