



**UNIVERSITAS NEGERI PADANG**  
FACULTY OF MATHEMATICS AND NATURAL SCIENCES MATHEMATICS  
DEPARTMENT, MATHEMATICS STUDY PROGRAM Main Campus Universitas  
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**Bachelor of Science in Mathematics**

**MODULE HANDBOOK**

Module name:	Mathematical Teaching
Module level,if applicable:	Bachelor
Code:	MAT2.62.8007
Sub-heading,if applicable:	-
Classes,if applicable:	Mathematical Teaching
Semester:	8 <sup>th</sup> (eighth)
Module coordinator:	Department of Mathematics
Lecturer(s):	Dr. Arnellis, M.Si.
Language:	Indonesian Language and English
Classification within the curriculum:	Elective course in the fourth year (8 <sup>th</sup> semester) Bachelor Degree
Teaching format / class hoursperweekduring the semester:	<ol style="list-style-type: none"><li>Lectures: by Project Based Learning with methods such as presentations, group, and class discussion. (3 x 50 minutes = 150 minutes)</li><li>Structured assignment: Group project. (3 x 60 minutes = 180 minutes)</li><li>Individual study (3 x 60 minutes = 180 minutes)</li></ol>
Workload:	Total workload is 136 hours per semester, which consists of 150 minutes lectures per week for 16 weeks, 180 minutes structured activities per week, 180 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam.
Creditpoints:	3 SKS = 4,53 ECTS
Prerequisites course(s):	Students have taken the course of Introduction to Basic Mathematics course and have participated in the final exam of the course.
Course outcomes:	After completing this course the students should be able: CO 1. to express mathematics teaching concepts CO 2. to designing mathematics teaching correctly CO 3. to analyze mathematics teaching correctly CO 4. to evaluating mathematics teaching.

Content:	<ol style="list-style-type: none"> <li>1. Challenges Of Teaching Mathematical Knowledge For Teaching</li> <li>2. Long Range and Short Range Planning</li> <li>3. Theoretical and Methodological Perspectives on Teachers' Learning Through Teaching</li> <li>4. Teaching More Effective Lesson</li> <li>5. Mathematical Thinking Skills</li> <li>6. The Role of Problem Solving</li> <li>7. Using Technology to Enhance Mathematics Instruction</li> <li>8. Assessment</li> <li>9. Enriching Mathematics Instruction</li> <li>10. Extracurricular Activities in Mathematics</li> </ol>
Study/exam achievements:	<p>The final grade will be weighted as follows:</p> <p>The assessment consists of a final project (40%), a midterm exam (30%), and an assignment (20%) and Class Activities: Participation, Attitude, and Presence (10%)</p> <p>The final project: students make an article related to this course.</p> <p>Weekly tasks (fixing specific problems) come in two flavors: group and individual.</p> <p>A midterm test is taken to examine whether students understand the theory covered in the half-semester course.</p> <p>After collecting the group task, presentations are held in the classroom and focus on the group members' performances.</p>
Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.
Literature:	<ol style="list-style-type: none"> <li>1 Alfred, S.P and Beverly, S.S. (2015). Teaching Secondary Mathematics. Technique and Enrichment Units. Pearson Education, Inc</li> <li>2 Roza Leikin · Rina Zazkis, (2010) Learning Through Teaching Mathematics. Springer Science+Business Media B.V.</li> <li>3 Deborah V. Mink, Ph. D, (2010). Strategy for Teaching Mathematics. Shell Education Publishing, Inc</li> <li>4 <i>Harvey F. Silver; John R. Brunsting; Terry Walsh; Edward J. Thomas. (2013). Buku Pengajaran Matematika Kurikulum Inti Bersama Edisi 2</i></li> <li>5 <i>Ruseffendi. Buku Pengajaran Matematika CBSA. Tarsito Bandung</i></li> </ol>

