



**UNIVERSITAS NEGERI PADANG**  
 FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
 MATHEMATICS DEPARTMENT, MATHEMATICS EDUCATION STUDY PROGRAM  
 Main Campus Universitas Negeri Padang.  
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**Bachelor of Mathematics Education**

**MODULE HANDBOOK**

Module name:	Geometry Transformation
Module level, if applicable:	Bachelor
Code:	MAT2.61.6101
Sub-heading, if applicable:	-
Classes, if applicable:	Geometry Transformation
Semester:	6 <sup>th</sup> (Sixth)
Module coordinator:	Mirna, S.Pd., M.Pd.
Lecturer(s):	Mirna, S.Pd., M.Pd., and Team
Language:	Bahasa Indonesia and English
Classification within the curriculum:	Elective Study Program Course
Teaching format / class hours per week during the semester:	<p>Teaching format:</p> <ul style="list-style-type: none"> <li>• Lectures (face to face activities): Problem Based Learning with method such as Explanation, Expository, and Class Discussion.</li> <li>• Structured Assignment,</li> <li>• Independent Activities.</li> <li>• Practice</li> </ul> <p>3 x 170 minutes = 510 minutes = 8.50 hours</p>
Workload:	<p>16 weeks per semester include Midterm Exam and Final Exam which consist of:</p> <ul style="list-style-type: none"> <li>• 1.67 hours lectures (2 x 50 minutes) per week,</li> <li>• 2 hours structured assignments (2 x 60 minutes) per week,</li> <li>• 2 hours independent activities (2 x 60 minutes) per week</li> <li>• 2. 83 hours practice (1 x 170) per week</li> </ul> <p>16 x 170 x 3 = 8160 Minute = 136 hours = 4.53 ECTS</p>
Credit points:	3 SKS (4.53 ECTS)
Prerequisite's course(s):	Plane and Spaces Geometry Analytic and Introduction Basic Mathematics
Course outcomes:	<p>After taking this course the students have ability to:</p> <p>Knowledge</p> <p>CO1. Express the concepts of basic transformation geometry of planes, isometry, translation, rotation, reflection, isometric composition, similarity and dilatation.</p> <p>CO2. Interpret the concepts of basic transformation geometry of planes, isometry, translation, rotation, reflection,</p>

	<p>isometric composition, similarity and dilatation</p> <p>CO3. Applying the concepts of basic transformation geometry of planes, isometry, translation, rotation, reflection, isometric composition, similarity and dilatation</p> <p>CO4. Analyzing the problems that connect to the concepts of basic transformation geometry of planes, isometry, translation, rotation, reflection, isometric composition, similarity and dilatation</p> <p>CO5. Showing the responsibility attitude in own works</p> <p>CO6. Maintaining the responsibility attitude in team work</p>
<p>Content:</p>	<p>This course discusses:</p> <ol style="list-style-type: none"> <li>1. basic transformation geometry of planes,</li> <li>2. isometry,</li> <li>3. translation,</li> <li>4. rotation,</li> <li>5. reflection,</li> <li>6. isometric composition,</li> <li>7. similarity</li> <li>8. dilatation</li> </ol>
<p>Study/exam achievements:</p>	<p>Total Score = (35% x Midterm Exam Score) + (35% x Final Exam Score) + (15% x Assignments) + (10% x Affective and Class Activities: Participation, Attitude, and Presence))</p> <p>The initial cut - off points for grades A, A-, B+, B, B-, C+, C, C-, and D should not be less than 85, 80, 75, 70, 65, 60, 55, 50, and 40 out of 100 respectively.</p> <p><b>Explanation:</b></p> <ol style="list-style-type: none"> <li><b>1. Midterm Exam</b> <ul style="list-style-type: none"> <li>✓ Midterm Exam is held at the 9<sup>th</sup> meeting</li> <li>✓ Midterm Exam is written exam (essay test) and carried out in the classroom with an implementation time of 120 minutes according to the module schedule</li> </ul> </li> <li><b>2. Final Exam</b> <ul style="list-style-type: none"> <li>✓ Final Exam is held at the 16<sup>th</sup> meeting</li> <li>✓ Final Exam is a written exam (essay test) and carried out in the classroom with an implementation time of 120 minutes which follows the Final Exam implementation schedule of the department.</li> </ul> </li> <li><b>3. Assignment</b> <ul style="list-style-type: none"> <li>✓ Assignments are given as exercise before Midterm Exam and before Final Exam.</li> <li>✓ Assignments are about analyzing problem in daily life and solve it with the concept of the content in geometry transformation.</li> <li>✓ Assignments are given as structured assignment and it is submitted in limited time.</li> </ul> </li> <li><b>4. Affective Assessment</b> <ul style="list-style-type: none"> <li>✓ Affective assessment is held in every meeting by observing students' attitude in the classroom.</li> <li>✓ The assessment is based on the observation sheet by using</li> </ul> </li> </ol>

