



**UNIVERSITAS NEGERI PADANG**  
 FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
 MATHEMATICS DEPARTMENT, MATHEMATICS EDUCATION STUDY PROGRAM  
 Main Campus Universitas Negeri Padang.  
 Jalan Prof. Dr. Hamka Air Tawar Padang, Sumatera Barat  
 Telepon: +62 751 7053902, Fax: +62 751 7055628  
 Email: matematika@fmipa.unp.ac.id

**Bachelor of Mathematics Education**

**MODULE HANDBOOK**

Module name:	Plane and Space Geometry
Module level, if applicable:	Bachelor
Code:	MAT1.61.2302
Sub-heading, if applicable:	-
Classes, if applicable:	Plane and Space Geometry
Semester:	2 <sup>nd</sup> (second)
Module coordinator:	Mirna, S.Pd., M.Pd.
Lecturer(s):	Mirna, S.Pd., M.Pd., and Team
Language:	Bahasa Indonesia
Classification within the curriculum:	Study program Compulsory 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): expository, project based learning, group discussion</li> <li>● Structured Assignment,</li> <li>● Independent Activities</li> <li>● Practice (doing task Higher Order Thinking Skill)</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)
Prerequisites course(s):	-

Course outcomes:	<p>After taking this course the students have ability to:</p> <p>CO1 : Express the concept of points, lines, planes and angles on geometry of planes and spaces</p> <p>CO2 : Interpret the concept of points, lines, planes and angles on geometry of planes and spaces</p> <p>CO3 : Apply the concept of points, lines, planes and angles on geometry of planes and spaces</p> <p>CO4 : Analyze the problems that connect to the concept of points, lines, planes and angles on geometry of planes and spaces</p> <p>CO5 : Show the responsibility attitude in own works</p> <p>CO6 : Maintain the responsibility attitude in team works</p>
Content:	<p>This course discusses:</p> <p>Undefined terms in geometry;</p> <ol style="list-style-type: none"> <li>1. Plane geometry which includes parallel lines and planes</li> <li>2. Congruent and congruent triangles</li> <li>3. Circles, paintings and places</li> <li>4. The area of a flat shape</li> <li>5. The geometry of space which includes the area and volume of the shape</li> <li>6. Painting in space</li> <li>7. Points of penetration of lines and planes, angles, and distances in space.</li> </ol>

Study/exam achievements:	<p>Total Score= (35% x Midterm exam Score) + (35% x Final Exam Score) + (20% x assignment/project doing task Lower and Higher Order Thinking Skill) + (10% x 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> <p><b>1. Midterm Exam</b></p> <ul style="list-style-type: none"> <li>✓ Midterm Exam will be conducted in the 9<sup>th</sup> meeting</li> <li>✓ Midterm Exam is in the form of a written test (essay) and will be conducted in the classroom</li> <li>✓ The time allocation is 120 minutes according to the module schedule</li> </ul> <p><b>2. Final Exam</b></p> <ul style="list-style-type: none"> <li>✓ Final Exam will be conducted in the 16<sup>th</sup> meeting</li> <li>✓ Final Exam is in the form of a written test (essay) and will be conducted in the classroom</li> <li>✓ The time allocation is 120 minutes which follows the Final Exam schedule provided by the Department.</li> </ul> <p><b>3. Assignment/Project</b></p> <ul style="list-style-type: none"> <li>✓ Assignments were given once every week based on the topic</li> <li>✓ Assignments are about analyzing problem in daily life and solve it with the concept of the content.</li> <li>✓ Assignments are given as Structured Assignment and it is submitted in limited time</li> <li>✓ Project are given as individual task</li> <li>✓ Project is about solve the Lower and Higher Order Thinking Problems</li> </ul> <p><b>4. Affective Assessment</b></p> <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 the given scoring rubrics.</li> </ul>
Forms of media:	LCD and whiteboard
Literature:	<ol style="list-style-type: none"> <li>1. Mirna. (2014). Geometri Bidang dan Ruang. FMIPA Universitas Negeri Padang.</li> <li>2. Ariawan, I Putu Wisna. (2014). Geometri Bidang. Yogyakarta: Graha Ilmu</li> <li>3. Rahmat, Mohamad. (2014). Modul Geometri Edisi 1. Tangerang Selatan: Universitas Terbuka</li> <li>4. Daniel C. Alexander and Geralyn M. Koeberlein. (2011) <i>Elementary Geometry for College Students</i>, Fifth Edition. Brooks/Cole, Cengage Learning.</li> <li>5. Sardjana, A. (2011). <i>Modul Geometri Ruang</i>. Universitas Terbuka</li> </ol>

