



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

MODULE HANDBOOK

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| Module name: | Analytic Geometry |
| Module level, if applicable: | Bachelor |
| Code: | MAT1.62.1001 |
| Subheading, if applicable: | - |
| Classes, if applicable: | Analytic Geometry |
| Semester | 1 st (first) |
| Module coordinator: | Head of Geometry Expertise Group |
| Lecturer(s): | Dr. Ali Asmar, M.Pd., Drs. Yusmet Rizal, M.Si and Dra. Media Rosha, M.Si. |
| Language: | Indonesian Language and English |
| Classification within the curriculum: | Compulsory course in the first year (1 st semester) Bachelor Degree |
| Teaching format / class hours per week during the semester: | <ol style="list-style-type: none">Lectures : cooperative learning with methods such as expository, discussion, and question and answer. (3 x 50 minutes = 150 minutes)Structured assignment : Weekly individual written assignment. (3 x 60 minutes = 180 minutes)Individual study. (3 x 60 minutes = 180 minutes). |
| Workload: | Total workload is 136 hours per semester, which consists of 150 minutes lecturer, 180 minutes structured activities, and 180 minutes individual study per week in total is 16 weeks per semester, including mid and final exams. |
| Credit points: | 3 sks = 4.53 ECTS |
| Prerequisites course(s): | - |

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| Course outcomes: | After taking this course the students have ability to: CO. 1 Determine the appropriate conic section equations (circle, parabola, ellipse, or hyperbole) in solving geometry problems. CO. 2 Apply the concept of analytic geometry in solving geometric problems in daily life logically, analytically and systematically |
| Content: | 1. Cartesian coordinate system 2. Circle 3. Parabola 4. Ellipse 5. Hyperbole |
| Study/exam achievements: | The final mark will be weighted as follows: Assignment (20 %), mid term exam (35%), final examination (35%), and participation/attendance/activities (10%). Assignments were given twice in one semester, before mid-term and before final exams. Assignments are offered as group projects in the form of papers and presentations, and they are graded using a rubric. Participation and activities of students during lectures are evaluated. |
| Forms of media: | White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting. |
| Literature: | 1. Mishra, Sanjay. (2015). Fundamentals of Mathematics: Coordinate Geometry, 2nd ed. Delhi: Pearson. 2. Silverman, Richard A. (2012). Modern Calculus and Analytic Geometry. New York: MacMillan Company. 3. Kokoska, Stephen. (2013). Fifty Famous Curves, Lots of Calculus Questions, And a Few Answers. Bloomsburg: Department of Mathematics, Computer Science, and Statistics, Bloomsburg University. |

PLO and CO Mapping

| | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 | PLO6 | PLO7 | PLO8 | PLO9 | PLO10 |
|-----|------|------|------|------|------|------|------|------|------|-------|
| CO1 | | | | | | | | | ✓ | |
| CO2 | | | | ✓ | | | | | | |