



Analytical Geometry

Module Name	Course Module
Module Level	Bachelor Degree of Mathematics Education
Code, if applicable	
Sub-title, if applicable	
Courses, if applicable	Analytical Geometry
Semester(s) in which the module is taught	4 th semester
Person responsible for the module	Lecturer of Courses
Lecturer (s)	Prof. Dr. Wardani Rahayu, M. Si Tian Abdul Aziz, Ph. D Leny Dhianti Haeruman, M. Pd
Language	Bahasa Indonesia
Relation to Curriculum	This course is a compulsory course and offered in the 4 th semester.
Type of teaching, contact hours	Teaching methods used in this course are: <ul style="list-style-type: none"> Lecture (i.e., grup investigation, small grup discussion, dan video-based learning) Structured assignments (i.e., essai and case study)
Workload	For this course, students required to meet a minimum of 135,99 hours in one semester, which consist of: 39,99 hours for lecture, 48 hours for structured assignments, 485 hours for independent study,
Credit Points	4.5 ECTS / 3 CP
Requirements according to the examination regulations	Students must attend all lectures and submit all individual and group assignments scheduled before the final exam.
Recommended prerequisites	-



Program intended learning outcomes	PLO 5: Able to master the basics of mathematical theoretical concepts, including mathematical logic, discrete mathematics, algebra, analysis and geometry as well as probability theory and statistics
Course Learning Objectives	<p>CLO 1 : Students are able to master the concept of lines in the field to solve math problems</p> <p>CLO 2: Students are able to master the concept of lines in space and planes and apply them in solving problems</p> <p>CLO 3 : Students are able to master the circle concept and apply it in solving mathematical problems.</p> <p>CLO 4 : Students are able to master the parabola concept and apply it in solving mathematical problems</p> <p>CLO 5 : Students are able to master the ellipse concept and apply it in solving mathematical problems.</p> <p>CLO 6 : Students are able to master the concept of hyperbole and apply it in solving mathematical problems</p> <p>CLO 7: Students are able to master the ball concept and apply it in solving mathematical problems</p>
Content	<p>Students will learn about:</p> <ol style="list-style-type: none"> 7. the concept of lines in the fields to solve math problems 8. the concept of lines in space and planes and apply them in solving problems 9. circle concept and apply it in solving mathematical problems 10. The concept of parabola and applying it in solving mathematical problems 11. ellipse concept and apply it in solving math problems 12. The concept of hyperbole and applying it in solving mathematical problems 13. ball concept and apply it in solving math problems
Forms of Assessment	<p>Assessment of the learning process according to the following components:</p> <p>Assignment 30%, mid test 30 %, and final test 40%</p>



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<p>Study and examination requirements and forms of examination</p>	<ul style="list-style-type: none"> - Students must be present 15 minutes before class starts. - Students must turn off all electronic devices. - Students are required to notify the lecturer if they are absent from class due to illness, etc. - Students must turn in all classwork before the deadline. - Students must take the exam to get the final grade. <p>Form of examination: Written Exam</p>
<p>Media employed</p>	<p>Laptop, Internet, LCD, Whiteboard, Zoom/GoogleTemui/Tim Microsoft, LMS.</p> <p style="text-align: center;">-</p>
<p>Reading list</p>	<p>Main Reference</p> <ul style="list-style-type: none"> • Anton, Howard. 2004. Aljabar Linear Elementer. Jakarta: Erlangga. • George B. Thomas Jr. Calculus and Analytic Geometry. 9th Edition. • http://www.ebook3000.com/Calculus-and-Analytic-Geometry--9th-Edition-125838.html (diakses Maret 2013) • K. Martono. 1987. Kalkulus Diferensial. Bandung: Alva Gracia. • _____. 1985. Kalkulus dan Ilmu Ukur Analitik. Bandung: Angkasa • Kreyszig, Erwin. 1993. Advanced Engineering Mathematics. New York: John Wiley & Sons, Inc. • Leithold, Louis. 1991. Kalkulus dan Ilmu Ukur Terjemahan Nababan. Jakarta: Erlangga • Purcell. 1986. Kalkulus dan Geometri Analitis. Diterjemahkan oleh Bana Kartasmita dan Rawuh. Jakarta: Erlangga. <p>Wardani Rahayu, Suprakarti, Oktaviani. 2018. Geometri Analitik. Yogyakarta: Matematica</p>