

## UNIVERSITAS GADJAH MADA

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## Undergraduate Programme in Mathematics

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**MODULE HANDBOOK** 

Module name	Geometry					
Module level, if applicable	Bachelor					
Code, if applicable	MMM-2113					
Subtitle, if applicable						
Courses, if applicable	Geometry					
Semester(s) in which the	3 <sup>rd</sup> (third)					
module is taught						
Person responsible for the	Chair of the Lab. of Analysis					
module						
Lecturer(s)	Moh. Tari, M.Si					
Language	Bahasa Indonesia					
Relation to curriculum	Bachelor Degree, Elective Course, 3rd semester					
Type of teaching, contact	150 minutes lectures and 180 minutes structured activities per week.					
hours	······································					
Workload	Total workload is 136 hours per semester, which consists of 150 minutes lectures per					
	week for 14 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.					
Credit points	3					
Requirements according to	Students have taken Geometry course (MMM-2113) and have an examination card					
the examination regulations	where the course is stated on.					
Recommended prerequisites	Students have taken Analytic Geometry course (MMM-1106), Intorduction to					
* *	Mathematical Logic course (MMM-1208), and have participated in the final					
	examination of the courses.					
	Before taking this course, students must have a good understanding in mathematical					
	logic and some concepts of analytic geometry.					
Module objectives/intended	After completing this course the students will be able :					
learning outcomes	CO1. to comprehend the concept of abstract geometry, incidence geometry, metric					
	geometry, Pasch geometry, Poincare plane, Taxicab plane, and Euclid plane.					
	CO2. to apply some of concepts in analytic geometry into the planes above.					
Content	Topics :					
	a. Introduction:					
	i. Explanation of the contents of the course.					
	ii. References, scoring and grading.					
	b. Abstract geometry, incidence geometry, metric geometry, and Pasch geometry.					
	c. Poincare plane, Taxicab plane, and Euclid plane.					
	d. Missing strip plane, angle, Moulton plane, perpendicular and congruence neutral					
	geometry, and congruence of triangle.					
Study and examination	The final mark will be weighted as follows:					
requirements and forms of	No Assessment methods (components, activities) Weight (percentage)					
examination	1 Final Examination 40					
	2 Mid-Term Examination 35					
	4 Class Activities: Quiz, Homework, etc. 25					
	The initial cut-off points for grades A, B, C, and D should not be less than 80%, 70%,					
	50%, and 40%, respectively.					
Media employed	White/Black Board, LCD Projector, Laptop/Computer					

Reading List	1. Edward C. Wallace and Stephen F. West, 2003, Roads to Geometry, 3rd Edition, Pearson.
0	2. Richard S. Millman and George D. Parker, 1991, Geometry: A Metric Approach with Models,
	Springer.

## PLO and CO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
CO 1		v	v						
CO 2		V	v						