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 module is taught	3rd (third)
Person responsible for the module	Chair of the Lab. of Analysis
Lecturer(s)	Moh. Tari, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Bachelor Degree, Elective Course, 3rd semester
Type of teaching, contact hours	150 minutes lectures and 180 minutes structured activities per week.
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 the examination regulations	Students have taken Geometry course (MMM-2113) and have an examination card 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 learning outcomes	After completing this course the students will be able : 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 requirements and forms of examination	The final mark will be weighted as follows: No Assessment methods (components, activities) Weight (percentage) 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. Richard S. Millman and George D. Parker, 1991, *Geometry: A Metric Approach with Models*, Springer.

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	2. Edward C. Wallace and Stephen F. West, 2003, *Roads to Geometry, 3rd Edition*, Pearson.

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						