



UNIVERSITAS NEGERI YOGYAKARTA
GRADUATE SCHOOL
MASTER OF EDUCATION IN MATHEMATICS

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Master of Education in Mathematics

MODULE HANDBOOK

Module name:	Number Theory
Module level,if applicable:	Graduate
Code:	PMA8202
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	2 th
Module coordinator:	Dr. Agus Maman Abadi
Lecturer(s):	Dr. Agus Maman Abadi, Dr. Dhoriva UW, Dr. R. Rosnawati
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format	Lecture: Face-to-face learning, presentation and discussion. Structured Activities: individual project, group project
Workload:	Lecture: 100 minutes/week Structured Activities: 120 minutes /week Self-Study: 120 minutes /week Total: 5,440minutes/semester or 90,67 hours/semester
Creditpoints:	2
Prerequisites course(s):	-
Course Outcomes	After taking this course the students have ability to: CO1.Solve problems related to number theory. CO2. Explain and sharpen the proof of properties of prime number, system of linear congruence equations, Wilson and Fermat Theorems, multiplication functions, and primitive roots. CO3. Apply the properties of prime number and congruence in cryptography
Content:	This course discusses the concepts and properties of the integers, prime number, Diophantine equations, system of

	linear congruence equations, divisibility properties, Wilson and Fermat theorems, multiplicative functions, primitive roots, and cryptography.																						
Study/examachievements:	The final mark will be weight as follow: <table><tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr><tr><td rowspan="4">1</td><td>CO1</td><td>a. Individual Assignment</td><td rowspan="4">Presentation / written test</td><td>20%</td></tr><tr><td>CO2</td><td>b. Presentation assignment</td><td>30%</td></tr><tr><td rowspan="2">CO3</td><td>c. Middle test</td><td>25%</td></tr><tr><td>d. Final Exam</td><td>25%</td></tr><tr><td colspan="3">Total</td><td>100%</td></tr></table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1	a. Individual Assignment	Presentation / written test	20%	CO2	b. Presentation assignment	30%	CO3	c. Middle test	25%	d. Final Exam	25%	Total			100%
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	CO3	c. Middle test		25%																			
		d. Final Exam		25%																			
Total			100%																				
Formsof media:	Board, LCD Projector, Laptop/Computer																						
Literature:	[A] Rosen, K. H.,2011, Elementary Number Theory and Its Applications, sixth edition, New Jersey : Addison-Wesley [B] Burton, D.M., 2011, Elementary Number Theory, 7 th edition, New York : McGraw-Hill																						

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1				✓					
CO2								✓	
CO3				✓					