



UNIVERSITAS NEGERI YOGYAKARTA
GRADUATE SCHOOL
MASTER OF EDUCATION IN MATHEMATICS

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Master of Education in Mathematics

MODULE HANDBOOK

Module name:	Psychology of Learning Mathematics
Module level,if applicable:	Graduate
Code:	PMA 8206
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	1 st
Module coordinator:	Dr. Djamilah Bondan Widjajanti, M.Si.
Lecturer(s):	Dr. Djamilah Bondan Widjajanti, M. Si. Endah Retnowati. Ph. D.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	Lectures (100 minutes/week): lectures, questions and answers, discussions, presentations. Structured activities (120 minutes/week): individual assignment/project, group assignment/project
Workload:	Lecture: 100 minutes/week Structured activities: 120 minutes/week Self-Study : 120 minutes/week Total: 5440/semester or 90.67 hours/semester
Creditpoints:	2
Prerequisites course(s):	-
Course Outcomes	After taking this course the students: CO1: have a deep understanding of how students learn mathematical concepts. CO2: have a deep understanding of interpersonal and

	emotional factors that influence student learning outcomes in mathematics. CO3: able to distinguish Behaviorism and Constructivism theory in mathematics learning. CO4: able to understand how students learn numbers, sets, mapping, functions, and geometry. CO5: able to diagnose students' difficulties in learning mathematics and design their remedial program.																																
Content:	This course discusses: (1) the formation of mathematical concepts; (2) interpersonal and emotional factors that influence student learning outcomes in mathematics; (3) motivation to learn mathematics; (4) anxiety about mathematics (math-anxiety); (5) belief in mathematics; (6) Behaviorism and constructivism theory in mathematics learning; (7) How students understand numbers, sets, mapping, functions, and geometry; (8) how to diagnose difficulties in learning mathematics; and (9) ways to reduce the difficulty of learning mathematics.																																
Study/exam achievements:	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="5">1</td><td>CO1</td><td>a. Individual</td><td rowspan="5">Presentation / written test</td><td>20%</td></tr><tr><td>CO2</td><td>Assignment</td><td></td></tr><tr><td>CO3</td><td>b. Group</td><td>25%</td></tr><tr><td>CO4</td><td>Assignment</td><td></td></tr><tr><td>CO5</td><td>c. Mid</td><td>25%</td></tr><tr><td></td><td></td><td>d. Final Exam</td><td></td><td>30%</td></tr><tr><td colspan="4">Total</td><td>100%</td></tr></table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1	a. Individual	Presentation / written test	20%	CO2	Assignment		CO3	b. Group	25%	CO4	Assignment		CO5	c. Mid	25%			d. Final Exam		30%	Total				100%
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	CO4	Assignment																															
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		d. Final Exam		30%																													
Total				100%																													
Forms of media:	Board, LCD Projector, Laptop/Computer																																
Literature:	A. Skemp, R.(1971). <i>The Psychology of Learning Mathematics</i>. England: Penguin Books. B. Bell, F. H. (1978). <i>Teaching and Learning Mathematics in</i>																																

	<i>Secondary School.</i> USA: Wm. C. Brown Company Publishers. C.Kilpatrick, J., Swafford, J & Findell, B. (Eds.). (2001). <i>Adding It Up: Helping Children Learn Mathematics.</i> Washington, DC: National Academy Press. D.Liebeck, P (1984). <i>How Children Learn Mathematics.</i> England: Penguin Books.
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1		✓							
CO2		✓							
CO3		✓							
CO4		✓							
CO5			✓						