



UNIVERSITAS NEGERI YOGYAKARTA
GRADUATE SCHOOL
MASTER OF EDUCATION IN MATHEMATICS

Jalan Colombo Nomor 1 Yogyakarta 55281
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Master of Education in Mathematics

MODULE HANDBOOK

Module name:	Methods of Teaching Mathematics
Module level,if applicable:	Graduate
Code:	PMA8201
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	2 nd
Module coordinator:	Dr. Ali Mahmudi
Lecturer(s):	Dr. Ali Mahmudi
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	Lecture: face-to-face learning, blended learning, presentation, and discussion, quiz Structured activities: individual assignment, group assignment
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 have ability to: CO1. Understand the nature of mathematics and school mathematics CO2. Understand the philosophy of mathematics learning CO3. Understand mathematical learning theories CO4. Understand student-centered learning models, approaches, methods, strategies CO5. Develop and improve students' mathematical abilities and their character CO6. Design learning based on innovative learning models,

	approaches, methods, strategies																																			
Content:	In this course, the nature of mathematics and school mathematics are discussed. This course also discusses about the philosophy and theories of mathematics learning, models /approaches /methods /strategies of mathematics learning, developing students' mathematical abilities and their character, managing learning process, and designing learning materials to develop certain mathematical abilities based on the model / approach / method / relevant learning strategy																																			
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>1</td><td>CO1 – CO6</td><td>a. Presentation</td><td>Observation</td><td>15%</td></tr><tr><td></td><td></td><td>b. Individual Assignment</td><td>Written test</td><td>15%</td></tr><tr><td></td><td></td><td>c. Group Assignment</td><td></td><td>15%</td></tr><tr><td></td><td></td><td>d. Mid Exam</td><td></td><td>25%</td></tr><tr><td></td><td></td><td>e. 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 – CO6	a. Presentation	Observation	15%			b. Individual Assignment	Written test	15%			c. Group Assignment		15%			d. Mid Exam		25%			e. Final Exam		30%	Total				100%
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Forms of media:	Board, LCD Projector, Laptop/Computer																																			
Literature:	A. Main References 1. Arends, R.T. and Kilcher, Ann. 2010. <i>Teaching for Student Learning. Becoming an Accomplished Teacher</i>. Newyork: Routldge. 2. Becker, J.P & Shimada, S. (Eds.). <i>Open-Ended Approach: A New Proposal for Teaching Mathematics</i>. NCTM 3. Cohen & Brody (Ed.). (2004). <i>Teaching Cooperative Learning: The Challenge for Teacher Education</i>. NY: Suny 4. Delisle, R. (1997). <i>How to Use Problem-Based Learning in the Classroom</i>. Virginia: ASCD 5. Jist. 2006. <i>Young Person's Character Education Handbook</i>. Indianapolis: JIST Publishing, Inc 6. Joyce, Bruce & Weil, Marsha (1996). <i>Models of Teaching</i>. Boston: Allyn and Bacon. 7. Muschla, J.A. & Muschla, G.R. (2006). <i>Hand-On Math</i>																																			

	<i>projects with Real-Life Applications</i>. Sanfransisco, USA: Jossey-Bass 8. Nucci, L.P. & Narvaez, D. 2008. <i>Handbook of Moral and Character Education</i>. New York: Routledge 9. Polya, G. (1989). <i>How to Solve It</i>. NJ: Prentice-Hall 10. Pritchard, A. & Woollard, J. 2010. <i>Psychology for the Classroom: Constructivism and Social Learning</i>. London: Routledge 11. Slavin, R.E. 2006. <i>Educational Psychology: Theory and Practice. Eight Edition</i>. USA: Pearson. 12. Suherman, Erman dkk. (2001). <i>Common Text Book; Strategi Pembelajaran Matematika Kontemporer</i>. Bandung : JICA-UPI 13. Westwood, Peter. 2008. <i>What Teacher Need to Know about Teaching Method</i>. Victoria, Australia: Camberwell, Vic. B. Additional References 1. Permendikbud No. 54 tentang Standar Kompetensi Lulusan (SKL) 2. Permendikbud No. 54 tentang Standar Proses 3. Permendikbud No. 66 tentang Standar Penilaian 4. Permendikbud No. 67 tentang Isi atau Struktur Kurikulum dan Kompetensi Dasar
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1		√							
CO2		√							
CO3		√							
CO4		√							
CO5			√						
CO6			√						