



## UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
DEPARTMENT OF MATHEMATICS EDUCATION

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### Bachelor of Education in Mathematics

### MODULE HANDBOOK

Module name:	Research Methodology for Mathematics Education
Module level, if applicable:	Undergraduate
Code:	PMA6311
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	6 <sup>th</sup>
Module coordinator:	Heri Retnawati, Dr.
Lecturer(s):	Heri Retnawati, Dr. Rosnawati, Dr.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	150 minutes lectures and 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self study per week for 16 weeks.
Credit points:	3
Prerequisites course(s):	-
Course Outcomes	After taking this course the students have ability to CO1. Demonstrate obedience and discipline on academic values, norms and ethics CO2. Communicate ideas and thoughts in the learning process in writing or verbally

	<p>CO3. Demonstrate collaborative attitudes in the learning process, discuss or complete assignments</p> <p>CO4. Explain the latest ideas or ideas related to mathematics education research</p> <p>CO5. Explain concepts related to educational research methodology</p> <p>CO6. Develop a mathematics education research proposal</p>																									
<p>Content:</p>	<p>This course covers the study of mathematical education research methodologies which include (1) identification of educational research domains, (2) types of research, (3) identification of research problems, (3) identification of research variables, (4) preparation of theoretical studies, frameworks thinking, and research hypotheses, (5) sampling techniques, (6) development of indicators and research instruments, (7) evidence of validity and reliability estimation, (8) data analysis techniques, and (9) preparation of research proposals.</p>																									
<p>Study/exam achievements:</p>	<p>Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table border="1" data-bbox="618 1459 1430 1837"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO2 CO3</td> <td>Presentation</td> <td>Observation</td> <td>10%</td> </tr> <tr> <td>2</td> <td>CO3 CO4 CO5</td> <td>a. Individual assignment b. Group assignment c. Mid exam d. Post exam</td> <td>Written test</td> <td>10% 10% 25% 25%</td> </tr> <tr> <td>3</td> <td>CO6</td> <td>Product</td> <td>Observation</td> <td>20%</td> </tr> <tr> <td colspan="4" style="text-align: right;">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO2 CO3	Presentation	Observation	10%	2	CO3 CO4 CO5	a. Individual assignment b. Group assignment c. Mid exam d. Post exam	Written test	10% 10% 25% 25%	3	CO6	Product	Observation	20%	Total				100%
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