



UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION

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Bachelor of Education in Mathematics

MODULE HANDBOOK

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| Module name: | Study of Primary School Mathematics |
| Module level, if applicable: | Undergraduate |
| Code: | PMA6221 |
| Sub-heading, if applicable: | - |
| Classes, if applicable: | - |
| Semester: | 7 th |
| Module coordinator: | Sugiman, M.Si., Dr. |
| Lecturer(s): | Sugiman, M.Si., Dr. |
| Language: | Bahasa Indonesia |
| Classification within the curriculum: | Elective Course |
| Teaching format / class hours per week during the semester: | 100 minutes lectures and 120 minutes structured activities per week. |
| Workload: | Total workload is 90,67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes self study per week for 16 weeks. |
| Credit points: | 2 |
| Prerequisites course(s): | - |
| Course outcomes: | After taking this course the students have ability to: CO1. demonstrate collaborative attitude and independence to do individual or group assignments |

| | <p>CO2. Communicate ideas in solving mathematical problems in writing or verbally</p> <p>CO3. Demonstrating elementary school's math concepts mastery by using emergence model approach</p> <p>CO4. Knowing the mathematics' didactic knowledge in elementary school by using an approach to the model (emergence model) includes the model of and model for.</p> <p>CO5. Having problem solving ability which related to elementary school math concepts along with their didactics</p> <p>CO6. Having skill in making mathematics' lesson plans for elementary school</p> <p>CO7. Possessing skill in making manipulative media and learning resources for elementary school supporting the application of the model (model of - model for)</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|---|----------------------|--------------------------|----------------------|--------|---|-----|--------------|-------------|-----|---|-------------|---|--------------|--------------------------|---|-------------------|---|-------------|-----|-------|--|--|--|------|
| Content: | <p>This course provides skills and ability to the students in solving mathematical problems on number sense topics (including: numbers, operations and characteristics of numbers, fractions, decimals, percent, and fractional count operations), ratio , proportion, least common multiple-greatest common divisor, algebra, statistics, opportunities, geometric shapes, measurements, speed and debit.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| Study/exam achievements: | <p>The final mark will be weight as follow:</p> <table border="1" data-bbox="589 1184 1377 1591"> <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</td> <td>Presentation</td> <td>Observation</td> <td>10%</td> </tr> <tr> <td>2</td> <td>CO3 and CO4</td> <td>a. Individual assignment b. Group assignment c. Mid exam d. Final exam</td> <td>Written test</td> <td>15% 15% 25% 25%</td> </tr> <tr> <td>3</td> <td>CO5, CO6, and CO7</td> <td>Rancangan learning trajektori dan lesson plan beserta produk media manipulatifnya</td> <td>Observation</td> <td>10%</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 | Presentation | Observation | 10% | 2 | CO3 and CO4 | a. Individual assignment b. Group assignment c. Mid exam d. Final exam | Written test | 15% 15% 25% 25% | 3 | CO5, CO6, and CO7 | Rancangan learning trajektori dan lesson plan beserta produk media manipulatifnya | Observation | 10% | Total | | | | 100% |
| No | CO | Assessment Object | Assessment Technique | Weight | | | | | | | | | | | | | | | | | | | | | | |
| 1 | CO2 | Presentation | Observation | 10% | | | | | | | | | | | | | | | | | | | | | | |
| 2 | CO3 and CO4 | a. Individual assignment b. Group assignment c. Mid exam d. Final exam | Written test | 15% 15% 25% 25% | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CO5, CO6, and CO7 | Rancangan learning trajektori dan lesson plan beserta produk media manipulatifnya | Observation | 10% | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 100% | | | | | | | | | | | | | | | | | | | | | | |
| Forms of media: | Board, LCD Projector, Laptop/Computer | | | | | | | | | | | | | | | | | | | | | | | | | |
| Literature: | <p>1. Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M., & Wray, J. 2013. Elementary and middle school mathematics. Teaching Developmentally (8th Edition). New Jersey: Pearson.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | <p>2. Bennett, A.B., Burton, L.J., & Nelson, L.T. 2010. Mathematics for Elementary Teacher: A Conceptual Approach. 9th edition. New York. Mc Graw Hill.</p> <p>3. Musser, G.L., Burger, W.F. & Peterson, B.E. 2011. Mathematics for Elementary Teacher: A Contemporary Approach. 9th edition. Hoboken, NJ: John Wiley & Sons, Inc.</p> |
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PLO and CO Mapping

| | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 | PLO6 | PLO7 | PLO8 | PLO9 | PLO10 | PLO11 | PLO12 |
|-----|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| CO1 | | ✓ | | | | | | | | | | |
| CO2 | | | ✓ | | | | | | | | | |
| CO3 | | | | | ✓ | | | | | | | |
| CO4 | | | | | | ✓ | | | | | | |
| CO5 | | | | | | | ✓ | | | | | |
| CO6 | | | | | | | | ✓ | | | | |
| CO7 | | | | | | | | | | ✓ | | |