



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: | Multimedia for Mathematics Learning |
| Module level, if applicable: | Undergraduate |
| Code: | PMA6210 |
| Sub-heading,if applicable: | - |
| Classes,if applicable: | - |
| Semester: | 5 th |
| Module coordinator: | Nur Hadi W., M.Eng |
| Lecturer(s): | Nur Hadi W., M.Eng |
| Language: | Bahasa Indonesia |
| Classification within the curriculum: | Compulsory 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): | Algorithm and Programming (MAT6310) |
| Course Outcomes | After taking this course, students have ability to CO1. Demonstrate collaborative attitude and independence in carrying out individual tasks and group assignments CO2. Understand definition of multimedia and multimedia developer CO3. Understand the type of text, use text and Typography techniques |

| | <p>CO4. Understand how to use any type of image and image software</p> <p>CO5. Know the types of audio video file and use audio video editing software</p> <p>CO6. Understand and apply the concept of color theory</p> <p>CO7. Make the learning media story board</p> <p>CO8. Develop interactive learning media</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|----------------------|-------------------|----------------------|--------|---|-----|--------------|-------------|-----|---|--------------------------|---|--------------|-------------------|---|------------|----------------------------------|-------------|-----|-------|--|--|--|------|
| <p>Content:</p> | <p>This course provides the basis knowledge of visual communication design for the design and development of mathematics multimedia-interactive-based learning. This include computer and mobile devices with software. Topics in this course are components of visual communication design, introduction of software development, and working system of computer and mobile devices</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="620 1356 1425 1833"> <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 CO4 CO5 CO6</td> <td>a. Individual assignment b. Group assignmen c. Mid exam</td> <td>Written test</td> <td>10% 15% 25%</td> </tr> <tr> <td>3</td> <td>CO7 CO8</td> <td>Presentation and website project</td> <td>Observation</td> <td>40%</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 CO4 CO5 CO6 | a. Individual assignment b. Group assignmen c. Mid exam | Written test | 10% 15% 25% | 3 | CO7 CO8 | Presentation and website project | Observation | 40% | Total | | | | 100% |
| No | CO | Assessment Object | Assessment Technique | Weight | | | | | | | | | | | | | | | | | | | | | | |
| 1 | CO2 | Presentation | Observation | 10% | | | | | | | | | | | | | | | | | | | | | | |
| 2 | CO3 CO4 CO5 CO6 | a. Individual assignment b. Group assignmen c. Mid exam | Written test | 10% 15% 25% | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CO7 CO8 | Presentation and website project | Observation | 40% | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 100% | | | | | | | | | | | | | | | | | | | | | | |

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| Forms of media: | Board, LCD Projector, Laptop/Computer |
| Literature: | <ol style="list-style-type: none"> 1. Iwan Binanto.2010. Multimedia Digital-Dasar Teori dan Pengembangannya. Andi Offset.Yogyakarta 2. Russel Chun. 2010. Adobe Flash Profesional CS5-Classroom in A Book. Adobe Systems Incorporated and its licensors. California USA 3. Nur Hadi W. 2014.Handout Komputer Multimedia.UNY. Yogyakarta 4. Jeff Carlson,Toby Malina,Glenn Fleishman.1999. <i>Web site graphics: Typography</i>. Massachusetts : Rockport Publisher Inc. 5. Jan-Peter Homann (2008)Digital Color Management Principles and Strategies for the Standardized Print Production, Springer-Verlag Berlin Heidelberg |

PLO and CO mapping

| | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 | PLO6 | PLO7 | PLO8 | PLO9 | PLO10 | PLO11 | PLO12 |
|-----|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| CO1 | | ✓ | | | | | | | | | | |
| CO2 | | | | ✓ | | | | | | | | |
| CO3 | | | | ✓ | | | | | | | | |
| CO4 | | | | ✓ | | | | | | | | |
| CO5 | | | | ✓ | | | | | | | | |
| CO6 | | | | ✓ | | | | | | | | |
| CO7 | | | | | ✓ | | | | | | | |
| CO8 | | | | | | | | | | ✓ | | |