



# UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Mathematics

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## Doctor in Mathematics

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## MODULE HANDBOOK

Module Name	<i>Advanced Capita Selecta on Applied Mathematics B</i>
Code, if applicable	<i>MMM-7311</i>
Subtitle, if applicable	<i>Advanced Capita Selecta on Applied Mathematics B</i>
Semester(s) in which the module is taught	<i>1<sup>st</sup> or 2<sup>nd</sup></i>
Person responsible for the module	<i>Chair of the Lab. of Applied Mathematics</i>
Language	<i>Bahasa Indonesia</i>
Relation to curriculum	<del>Compulsory</del> / <b><i>Elective course in doctoral Curriculum 2022-</i></b>
Teaching methods	<i>lecture, lesson, project.</i>
Workload (incl. contact hours, self-study hours)	<i>- Total workload is 232 hours per semester, which consists of 50 minutes lectures per week, 120 minutes structured activities per week, 120 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam.</i>
Credit points in Credit Units	<i>3</i>
Required and recommended prerequisites for joining the module	<i>Before taking this course, the students must have a good understanding the mathematical concept related to the topics.</i>
Module objectives/intended learning outcomes	<i>After completing this course, the students should have:</i> <i>CO 1. ability to use the theories and concepts from other disciplines to solve the problems in applied mathematics.</i> <i>CO 2. ability to combine the theories in mathematics and the ones from other disciplines to solve the real problems.</i> <i>CO 3. ability to do research in applied mathematics.</i>

Content	<i>In this course, the students do some academic activities under supervision by the lecturer(s). The academic activities are provided by the literature studies for understanding one or more <b>theories or concepts from other disciplines</b> (not mathematics theories). <b>The topics and also the syllabus will be decided related to the research topics of the student.</b></i>										
Examination forms	<i>Oral presentation, Essay, Projects</i>										
Study and examination requirements	To pass the course, the minimum grade is B. <i>The final mark will be computed from a proportional weight of assignments, mid examination and final examination. The final mark will be weighted as follows:</i>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: left;"><i>No Assessment methods</i></td> <td style="text-align: right;"><i>Weight (percentage)</i></td> </tr> <tr> <td><i>1. Final Examination</i></td> <td style="text-align: right;"><i>30 (15% case based)</i></td> </tr> <tr> <td><i>2. Mid-Term Examination</i></td> <td style="text-align: right;"><i>30 (10% case based)</i></td> </tr> <tr> <td><i>3. Project and Presentation</i></td> <td style="text-align: right;"><i>25</i></td> </tr> <tr> <td><i>4. Other Activities: Quiz, Homework, etc.</i></td> <td style="text-align: right;"><i>15</i></td> </tr> </table> <i>The initial cut-off points for grades A, B, C, and D should not be less than 80%, 70%, 50%, and 40%, respectively.</i>	<i>No Assessment methods</i>	<i>Weight (percentage)</i>	<i>1. Final Examination</i>	<i>30 (15% case based)</i>	<i>2. Mid-Term Examination</i>	<i>30 (10% case based)</i>	<i>3. Project and Presentation</i>	<i>25</i>	<i>4. Other Activities: Quiz, Homework, etc.</i>	<i>15</i>
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Media employed	<i>Boards, projectors, Laptop/Computer</i>										
Reading list	<b><i>The reading list will be announced by the lecturer on the first meeting.</i></b>										

### CO-PLO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
CO 1	v	v	v		v	v
CO 2	v		v	v	v	v
CO 3	v	v	v	v	v	v

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