



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Mathematics Department

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Master Program in Mathematics

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MODULE HANDBOOK

Module name	<i>Function Spaces</i>												
Module level, if applicable	<i>Master</i>												
Code, if applicable	<i>MMM 6108</i>												
Subtitle, if applicable													
Courses, if applicable	<i>Function Spaces</i>												
Semester(s) in which the module is taught	<i>3rd (third)</i>												
Person responsible for the module	<i>Chair of Analysis Research Group</i>												
Lecture(s)	<i>Prof. Dr. Supama, M.Si Dewi Kartikasari, MSc, PhD.</i>												
Language	<i>Bahasa Indonesia</i>												
Relation to curriculum	<i>Master Degree, Elective course, 3rd (third) semester</i>												
Teaching methods	<i>Lectures, classroom discussion, and flipped classroom</i>												
Workload	<i>3 hours lectures, 3 hours structured activities, 3 hours individual study, 16 weeks per semester (including mid-term and final examinations), 144 hours per semester.</i>												
Credit points	<i>3</i>												
Required and recommended prerequisites for joining the module	<i>Students have taken the course of Analysis I and have participated in the final exam of the course.</i>												
Module objectives/intended learning outcomes	<i>After completing this course the students have ability to: CO 1. determine of bounded variation functions and absolutely continuous functions. CO 2. Prove some theorems of the Lebesgue spaces. CO 3. analyze and prove some properties related to the spaces of funtions defined by an Orlicz function.</i>												
Content	<ul style="list-style-type: none"> • <i>Spaces of bounded variation and absolutely continuous functions.</i> • <i>the Lebesgue spaces.</i> • <i>An Orlicz function and its properties. The spaces of funtions defined by an Orlicz function.</i> 												
Examination forms	<i>Essay and oral presentation</i>												
Study and examination requirements	<p><i>The final mark will be weighted as follows:</i></p> <table border="0"> <thead> <tr> <th><i>No</i></th> <th><i>Assessment methods (components, activities)</i></th> <th><i>Weight (percentage)</i></th> </tr> </thead> <tbody> <tr> <td><i>1</i></td> <td><i>Final Examination</i></td> <td><i>45%</i></td> </tr> <tr> <td><i>2</i></td> <td><i>Mid-Term Examination</i></td> <td><i>30%</i></td> </tr> <tr> <td><i>3</i></td> <td><i>Class Activities: Quiz, Homework, etc</i></td> <td><i>25%</i></td> </tr> </tbody> </table> <p><i>To pass the course, the minimum grade is C</i></p>	<i>No</i>	<i>Assessment methods (components, activities)</i>	<i>Weight (percentage)</i>	<i>1</i>	<i>Final Examination</i>	<i>45%</i>	<i>2</i>	<i>Mid-Term Examination</i>	<i>30%</i>	<i>3</i>	<i>Class Activities: Quiz, Homework, etc</i>	<i>25%</i>
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Media employed	<i>Board, LCD Projector, Laptop/Computer</i>												
Reading List	<ol style="list-style-type: none"> <i>1. Musielak, J., 1983, Orlicz Spaces and Modular Space, Springer Verlag, Halsey</i> <i>2. L. Royden, and Patrick M. Fitzpatrick, 2010, Real Analysis, 4th Edition, Prentice Hall.</i> <i>3. Rao, M.M., and Ren, Z. D., 2002. Pure and Applied Mathematics: A series of Monographand Textbooks, Application of Orlicz Spaces. New York: Marcel Dekker, Inc.</i> 												

PI and CO Mapping

	PLO1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
CO 1	v	v	v			v
CO 2	v	v	v			v
CO 3	v	v	v			v

Compilation Date

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Modified Date

:

30 July 2022