



MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY

UNIVERSITAS SRIWIJAYA

FACULTY OF TEACHER TRAINING AND EDUCATION

MATHEMATICS EDUCATION STUDY PROGRAM

Jl. Raya Palembang – Prabumulih Km.32, Indralaya Ogan Ilir 30662 Website: Fkip.unsri.ac.id

Doctoral Program in Mathematics Education

**MODULE HANDBOOK**

Module name/ Code	:	Topic in number theory/ GMA7206
Module level, if applicable	:	Doctor
Code	:	GMA7206
Subheading, if applicable	:	-
Class, if applicable	:	-
Semester	:	2 <sup>nd</sup> (second) / even
Module coordinator	:	Prof. Dr. Yusuf Hartono, M.Sc.
Lecturer(s)	:	Prof. Dr. Yusuf Hartono, M.Sc.
Language	:	Bahasa Indonesia and English
Classification within the curriculum	:	Study Program Elective Course
Teaching format/ class hours per week during the semester	:	Teaching format: lectures, tutorial assignment, and individual study. 2 x 300 minutes = 600 minutes = 10 hours lectures
Workload	:	14 weeks per semester consisting of: <ul style="list-style-type: none"> <li>➤ 1 hour lecture (1 x 50 minutes) per week,</li> <li>➤ 2 hours assignments (2 x 50 minutes) per week,</li> <li>➤ 2 hours individual study (2 x 75 minutes) per week,</li> </ul> Total workload: 14x2x300 minutes=8,400 minutes= 5.6 ECTS*
Credit points	:	2 (5.6 ECTS)
Prerequisite's course(s)	:	-
Course outcomes	:	After taking this course, students should be able to: CO-1: able to describe the concepts, philosophy, definitions and important properties of number theory according to a scientific and critical attitude. CO-2: able to prove important properties of number theory related to effective and communicative scientific arguments. CO-3: able to apply topic in number theory approaches to design problem solving from the social and natural sciences.
Content	:	This course discusses about number theory, such as the greatest partnership factor and the smallest multiplicity of Alliances, the Euclid Theorem, and Bezout's identity, division algorithms, prime and relatively prime, meanwhile prove important properties of number theory related to with effective and communicative scientific arguments, and apply topic in number



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		theory approaches to design problem solving from the social and natural sciences.																		
Study/exam achievements	:	<ul style="list-style-type: none"> <li>➤ Students are considered competent and pass if the final score calculated from the score of midterm exam, assignments, participation, and final exam is at least 56 or C.</li> <li>➤ It is expected that students attend 80% of the total meetings in the modules.</li> <li>➤ 35% midterm exam + 15% assignments + 10% participation + 40% final exam.</li> <li>➤ Final index is defined as follow: The total score is converted into a qualitative score,</li> </ul> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Total Score</th> <th>Grade</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>86 – 100</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td>71 – 85.99</td> <td>B</td> <td>Good</td> </tr> <tr> <td>56 – 70.99</td> <td>C</td> <td>Fair</td> </tr> <tr> <td>41 – 55.99</td> <td>D</td> <td>Bad</td> </tr> <tr> <td>0 – 40.99</td> <td>E</td> <td>Worse</td> </tr> </tbody> </table>	Total Score	Grade	Description	86 – 100	A	Excellent	71 – 85.99	B	Good	56 – 70.99	C	Fair	41 – 55.99	D	Bad	0 – 40.99	E	Worse
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Forms of media	:	Laptop and LCD projectors																		
Literature	:	<ol style="list-style-type: none"> <li>1. Gioia, A.A., “Theory of Numbers” Dover Pub., Chicago, 2001</li> <li>2. Apostol, TM, “Introduction to Analytic Number Theory”, ToppanCompany S.Pte. Ltd., Singapore, 1980</li> <li>3. Ake Lindahl, L; Lectures on Number Theory; Uppsala, 2002</li> <li>4. Stein, W; Elementary Number Theory; Harvard, UC San Diego; 2017</li> </ol>																		
Note	:	<p>*Total hours per 1 credit in 1 semester = <math>\{(1 \text{ credit} \times 300 \text{ minutes} \times 14 \text{ weeks})/60 \text{ minutes}\} = 70 \text{ hours}</math>.</p> <p>Each ECTS equals 25 hours therefore 1 credit in 1 semester equals 2.8 ECTS.</p>																		

### PLO and CO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1					✓				



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CO2					✓				
CO3					✓				