



Module Handbook

Module Name :	<i>Teori Bilangan</i> Number Theory
Module level :	Bachelor degree/Undergraduate Program
Course Code :	4420102134
Abbreviation, if applicable:	-
Courses included in the module, if applicable:	Not Applicable
Semester/Term	5 th / third year
Module coordinator(s)	Dr. Raden Sulaiman, M.Si
Lecturer(s):	Dr. Raden Sulaiman, M.Si Dr. Agung Lukito, M.Si
Language:	Bahasa Indonesia (Indonesian Language)
Classification within the curriculum:	Compulsory / Elective
Teaching format/class hours per week during the semester:	2 contact hours of lectures (<i>sks</i> or credit unit*)
Workload :	2 x 50 minutes lectures, 2 x 60 minutes structured activity, and 2 x 60 minutes individual activity per week, 14 weeks per semester 79.33 total hours per semester ~ 3.18 ECTS**
Credit Unit:	2 credit unit (3.18 ECTS)
Requirements:	Elementary Number Theory



<p>Learning goals/competencies:</p>	<p>Knowledge (KNO-1) Demonstrating mathematical knowledge and mathematical insight.</p> <p>CLO-1: Demonstrate mathematical knowledge in primitive roots and indices, linear congruence systems, quadratic congruences, and concatenated fractions</p> <p>Skill (SKI-2) Applying the basic principles of mathematics to solve simple* mathematical problems.</p> <p>CLO-2: Implement basic principle of mathematics to solve simple mathematical problem in primitive roots and indices, linear congruence systems, quadratic congruences, and concatenated fractions</p>
<p>Content</p>	<p>This course discusses Primitive roots and indices, linear congruence systems, quadratic congruences, and concatenated fractions. Lecture activities are carried out in a student center with discussions, observations, project assignments, and presentations.</p>

<p>Attribute Soft skill:</p>	<p>Active communication; Discipline; Collaboration; Responsibility; and Argumentation in class.</p>											
<p>Study/exam achievements:</p>	<p>The final grade (<i>NA</i>) is calculated based on the following ratio:</p> <table border="1" data-bbox="539 1391 1347 1713"> <thead> <tr> <th data-bbox="539 1391 943 1453">Assessment Components</th> <th data-bbox="943 1391 1347 1453">Percentage of contribution</th> </tr> </thead> <tbody> <tr> <td data-bbox="539 1453 943 1518">Participation</td> <td data-bbox="943 1453 1347 1518">20%</td> </tr> <tr> <td data-bbox="539 1518 943 1583">Assignment</td> <td data-bbox="943 1518 1347 1583">30%</td> </tr> <tr> <td data-bbox="539 1583 943 1648">Mid-semester test</td> <td data-bbox="943 1583 1347 1648">20%</td> </tr> <tr> <td data-bbox="539 1648 943 1713">Final semester test</td> <td data-bbox="943 1648 1347 1713">30%</td> </tr> </tbody> </table>		Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%
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	<p>Grade conversion of 0-100 scale into 0-4 scale is set as below:</p> <table border="1"> <thead> <tr> <th>Letter</th> <th>Number</th> <th>Grade Interval</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4,00</td> <td>$85 \leq A \leq 100$</td> </tr> <tr> <td>A-</td> <td>3,75</td> <td>$80 \leq A- < 85$</td> </tr> <tr> <td>B+</td> <td>3,50</td> <td>$75 \leq B+ < 80$</td> </tr> <tr> <td>B</td> <td>3,00</td> <td>$70 \leq B < 75$</td> </tr> <tr> <td>B-</td> <td>2,75</td> <td>$65 \leq B- < 70$</td> </tr> <tr> <td>C+</td> <td>2,50</td> <td>$60 \leq C+ < 65$</td> </tr> <tr> <td>C</td> <td>2,00</td> <td>$55 \leq C < 60$</td> </tr> <tr> <td>D</td> <td>1,00</td> <td>$40 \leq D < 55$</td> </tr> <tr> <td>E</td> <td>0,00</td> <td>$0 \leq E < 40$</td> </tr> </tbody> </table>	Letter	Number	Grade Interval	A	4,00	$85 \leq A \leq 100$	A-	3,75	$80 \leq A- < 85$	B+	3,50	$75 \leq B+ < 80$	B	3,00	$70 \leq B < 75$	B-	2,75	$65 \leq B- < 70$	C+	2,50	$60 \leq C+ < 65$	C	2,00	$55 \leq C < 60$	D	1,00	$40 \leq D < 55$	E	0,00	$0 \leq E < 40$
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Learning Methods :	Student-centered approach; project-based learning; lecturer and discussion; and presentations (structured activities)																														
Form of Media:	Power point slides; video; worksheets, and textbooks																														
Literature (primary references):	<ol style="list-style-type: none"> 1. Niven, Ivan & Zuckerman, H.S. 1960. <i>An Introduction to Theory of Numbers</i>. John Wiley and Sons Inc. 2. Rosen Kennet H. 1986. <i>Elementary Number Theory and its Applications</i>. Addison-Wesley Publishing Comp. 3. Griffin, Harriet. 1954. <i>Elementary Theory of Number</i>. McGraw-Hill Book Co. Inc.. 																														
Notes:	*1 credit unit or <i>sk</i> s in learning process = three periods consist of: (a) scheduled instruction in a classroom or laboratory (50 minutes); (b) structured activity (60 minutes); and (c) individual activity (60 minutes) according to the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 44 Year 2015 jo. the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 50 Year 2018.																														



MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY

UNIVERSITAS NEGERI SURABAYA

FACULTY OF MATHEMATICS AND NATURAL SCIENCE

UNDERGRADUATE PROGRAM OF MATHEMATICS

Ketintang Campus, C8-C9 Buildings of FMIPA, Surabaya

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<p>**1 credit unit or <i>sks</i> = 1.59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/UN38/HK/AK/2019</p>
