



Module Handbook

Module Name :	<i>Analisis Kompleks</i> Complex Analysis
Module level :	Bachelor degree/Undergraduate Program
Course Code :	4420103015
Abbreviation, if applicable:	-
Courses included in the module, if applicable:	Not Applicable
Semester/Term	6 th / third year
Module coordinator(s)	Prof. Dr. Manuharawati, M.Si.
Lecturer(s):	Prof. Dr. Manuharawati, M.Si. Muhammad Jakfar, M.Si.
Language:	Bahasa Indonesia (Indonesian Language)
Classification within the curriculum:	Compulsory / Elective
Teaching format/class hours per week during the semester:	3 contact hours of lectures (<i>sk</i> s or credit unit*)
Workload :	3 x 50 minutes lectures, 3 x 60 minutes structured activity, and 3 x 60 minutes individual activity per week, 14 weeks per semester 119 total hours per semester ~ 4.77 ECTS**
Credit Unit:	3 credit unit (4.77 ECTS)
Requirements:	Real Analysis II



<p>Learning goals/competencies:</p>	<p>Knowledge (KNO-1): Demonstrating mathematical knowledge and mathematical insight</p> <p>CLO-1: Explain concept about complex number systems, analytical complex functions, integral complex functions, sequences and series of numbers complex</p> <p>Skill (SKI-1) : Formulating and solving fundamental mathematical problems.</p> <p>CLO-2: Find the solution of the problem of complex number systems, analytical complex functions, integral complex functions, sequences and series of numbers complex</p> <p>Skill (SKI-3) : Analyzing the formal structure of mathematical problems and relevant fields</p> <p>CLO-3: Analyze the solution of the problem of complex number systems, analytical complex functions, integral complex functions, sequences and series of numbers complex</p> <p>Competences (COM-1) : Proving mathematical statements by various methods.</p> <p>CLO-4: Prove properties of complex number systems, analytical complex functions, integral complex functions, sequences and series of numbers complex</p> <p>Competences (COM-2) : Generating ideas used for completing mathematical tasks and to communicate them either in writing or orally, in accordance with scientific principles.</p> <p>CLO-3: Use theorems related to solve or complete mathematical tasks and communicate them in writing</p>
<p>Content</p>	<p>This course discusses Complex Number Systems, Analytical Complex Functions, Integral Complex Functions, Sequences And Series Of Numbers Complex. 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>
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Study/exam achievements:	The final grade (<i>NA</i>) is calculated based on the following ratio:		
	Assessment Components	Percentage of contribution	
	Participation	20%	
	Assignment	30%	
	Mid-semester test	20%	
	Final semester test	30%	
	Grade conversion of 0-100 scale into 0-4 scale is set as below:		
	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	$0 \leq E < 40$
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. Soemantri, R. 1996. <i>Fungsi Variable Kompleks</i>. Jakarta. Departemen Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Tinggi Proyek Pembinaan Tenaga Akademik.2. Ahlfors, L., V. 1966. <i>Complex Analysis</i>. New York. McGraw-Hill Book Company.3. Gamelin, T.W., 2001. <i>Complex Analysis</i>. New York. Springer-Verlax.4. Newman, J.B.D.J. 1987. <i>Complex Analysis</i>, Springer
Notes:	<p>*1 credit unit or <i>sks</i> 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.</p> <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>