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
Email: s1-mat@unesa.ac.id

Module Handbook

Module Name :	*Teori Ukuran* Measure Theory
Module level :	Bachelor degree/Undergraduate Program
Course Code :	4420103145
Abbreviation, if applicable:	-
Courses included in the module, if applicable:	Not Applicable
Semester/Term	7th/ fourth year
Module coordinator(s)	Prof. Dr. Manuharawati, M.Si
Lecturer(s):	Prof. Dr. Manuharawati, M.Si. Dwi Nur Yunianti, S.Si., M.Sc. Muhammad Jakfar, S.Si., 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 (*sks* 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 I

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
Email: s1-mat@unesa.ac.id

Learning goals/competencies:	**Knowledge (KNO-1)** CLO-1: Demonstratie mathematical knowledge and mathematical insight related to concept of measurability using the Lebesgue measure and its application. **Skill (SKI-1)** CLO-2: Formulate and solve fundamental mathematical problems related to concept of measurability using the Lebesgue measure and its application. **Skill (SKI-3)** CLO-3: Analyzing the formal structure of mathematical problems and relevant fields related to concept of measurability using the Lebesgue measure and its application. **Competences (COM-1)** CLO-4: Prove mathematical statements about the measurability measurability by various methods. **Attitude and Skill (SOC-2)** CLO-5: Show responsibility for work in the field of expertise independently, having a lifelong willingness to learn, and having the courage to make decisions.
Content	This course discusses The concept of measurability using the Lebesgue measure and its application in solving related problems. Lecture activities are carried out in a student center with discussions, observations, project assignments, and presentations.

Attribute Soft skill:	Active communication; Discipline; Collaboration; Responsibility; and Argumentation in class.	
Study/exam achievements:	The final grade (*NA*) is calculated based on the following ratio:	

Assessment Components	Percentage of contribution
Participation	20%
Assignment	30%
Mid-semester test	20%
Final semester test	30%

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
Email: s1-mat@unesa.ac.id

	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):	1. Jain, P. K. and Gupta, V. P. 1986. *Lebesgue Measure and Integration*. New York. John Wiley & Sons, Inc. 2. Manuharawati. 2014. *Ukuran dan Integral Lebesgue*. Sidoarjo. Zifatama.
Notes:	*1 credit unit or *sks* 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
Email: s1-mat@unesa.ac.id

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