

MODULE HANDBOOK

PRACTICAL WORK



**STATISTICS UNDERGRADUATE PROGRAM
DEPARTMENT OF STATISTICS
FACULTY OF SCIENCE AND DATA ANALYTICS
INSTITUT TEKNOLOGI SEPULUH NOPEMBER
SURABAYA**

ENDORSEMENT PAGE



**MODULE HANDBOOK
PRACTICAL WORK
STATISTICS UNDERGRADUATE PROGRAM
DEPARTMENT OF STATISTICS
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

Proses <i>Process</i>	Penanggung Jawab <i>Person in Charge</i>			Tanggal <i>Date</i>
	Nama <i>Name</i>	Jabatan <i>Position</i>	Tanda tangan <i>Signature</i>	
Perumus <i>Preparation</i>	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.	Dosen Lecturer		
Pemeriksa dan Pengendalian <i>Review and Control</i>	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.; Santi Wulan Purnami, S.Si, M.Si	Tim kurikulum Curriculum team		
Persetujuan <i>Approval</i>	Dr. Kartika Fithriasari, M.Si	Koordinator RMK Course Cluster Coordinator		
Penetapan <i>Determination</i>	Dr. Kartika Fithriasari, M.Si	Kepala Departemen Head of Department		

MODULE HANDBOOK

INTRODUCTION OF SURVIVAL ANALYSIS

Module name	PRACTICAL WORK	
Module level	Undergraduate	
Code	SS234758	
Course (if applicable)		
Semester	7	
Person responsible for the module	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.	
Lecturer	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.; Santi Wulan Purnami, S.Si, M.Si	
Language	Bahasa Indonesia and English	
Relation to curriculum	Undergraduate degree program, mandatory, 7th semester.	
Type of teaching, contact hours	Case Method (21.43%) Team Based Project (7.15%) Other SCL Methods (35.71%) Non-SCL Methods (35.71%)	
Workload	1. Lectures[L]: 2 x 50 = 100 minutes per week. 2. Exercises and Assignments[EA]: 2 x 60 = 120 minutes (2 hours) per week. 3. Independent Learning [IL]: 2 x 60 = 120 minutes (2 hours) per week.	
Credit points	2 credit points (SKS) Equivalent to 3.2 ECTS	
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to sit in the exams.	
Mandatory prerequisites	Regression Analysis, Categorical Data Analysis	
Learning outcomes and their corresponding PLOs	<p>CLO.1 Able to demonstrate attitudes and characters that reflect: being pious to God Almighty, having ethics and integrity, virtuous character, sensitive and concern with social and environmental issues, respecting cultural differences and pluralism, upholding law enforcement, prioritizing the interests of the nation and the wider community, through creativity and innovation, excellence, strong leadership, synergy, and other potentials to achieve maximum results</p> <p>CLO.2 Be able to study and utilize science and technology in order to apply it to the field of statistics, and able to make appropriate decisions from the results of their own work or</p>	<p>PLO-1 PLO-2 PLO-3 PLO-5 PLO-6 PLO-7 PLO-9 PLO-10</p>

	<p>group work in the form of a final project report or other forms of learning activities whose output is equivalent to a final project through logical, critical, systematic, and innovative thinking.</p> <p>CLO.3 Able to manage self-learning and develop oneself as a lifelong learner to compete at national and international levels, in order to make a real contribution to solving problems by implementing information and communication technology and paying attention to sustainability principles and understanding technology-based entrepreneurship</p> <p>CLO.4 Able to apply statistical theory to statistical methods</p> <p>CLO.5 Able to design, collect and manage data with the right methodology</p> <p>CLO.6 Able to use modern computing devices modern computing tools to solve statistical problems</p>	
Content	<p>Practical Work is a course that aims to enable students to learn to work and be able to apply statistical methods in the world of work. work and be able to apply statistical methods in the world of work. The learning strategy The learning strategy used is direct practice in private or government institutions for 1 month for a minimum of 20 effective working days (@7 hours per day) and reporting for 2 months (@3.5 hours per day). Each student is mentored by a supervisor in the department and agency. Assessment is based on the practical work report.</p>	
Assessment and its weight	<p>Assignment 1 (15%) Quiz (20%) Midterm Exam (25%) Final Project (35%)</p>	
Media employed	<p>LCD, whiteboard, websites (myITS Classroom), zoom</p>	
Reading list	<p>1. Working Guidelines Practice and Final Project Statistics - ITS</p>	



**INSTITUT TEKNOLOGI SEPULUH NOPEMBER
FAKULTAS SAINS DAN ANALITIKA DATA
PROGRAM STUDI SARJANA STATISTIKA
DEPARTEMEN STATISTIKA**

**RENCANA PEMBELAJARAN SEMESTER/
SEMESTER LEARNING PLAN**

MATA KULIAH (MK)/ Course	KODE/ Code	Rumpun MK/ Course Group	BOBOT (sks)/ Weight (credit)		SEMESTER/ Semester	Tgl Penyusunan/ Drafting Date
KERJA PRAKTIK / PRACTICAL WORK	SS234758		T=2	P=0	VII	
OTORISASI/ AUTHORIZATION	Pengembang RPS/ RPS Developer		Koordinator RMK/ Course Group Coordinator		Ketua PRODI/ Head of Department	
	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.; Santi Wulan Purnami, S.Si, M.Si				Dr. Kartika Fithriasari, M.Si	
Capaian Pembelajaran (CP)/ Learning Achievement	CPL-PRODI yang dibebankan pada MK/ PLO					
	CPL-1	Mampu menunjukkan sikap dan karakter yang mencerminkan: ketakwaan kepada Tuhan Yang Maha Esa, etika dan integritas, berbudi pekerti luhur, peka dan peduli terhadap masalah sosial dan lingkungan, menghargai perbedaan budaya dan kemajemukan, menjunjung tinggi penegakan hukum mendahulukan kepentingan bangsa dan masyarakat luas, melalui kreatifitas dan inovasi, eksekusi, kepemimpinan yang kuat, sinergi, dan potensi lain yang dimiliki untuk mencapai hasil yang maksimal.				
	CPL-2	Mampu mengkaji dan memanfaatkan ilmu pengetahuan dan teknologi dalam rangka mengaplikasikannya pada bidang Statistika, serta mampu mengambil keputusan secara tepat dari hasil kerja sendiri maupun kerja kelompok dalam bentuk laporan tugas akhir atau bentuk kegiatan pembelajaran lain yang luarannya setara dengan Tugas Akhir melalui pemikiran logis, kritis, sistematis dan inovatif				
	CPL-3	Mampu mengelola pembelajaran diri sendiri, dan mengembangkan diri sebagai pribadi pembelajar sepanjang hayat untuk bersaing di tingkat nasional, maupun internasional, dalam rangka berkontribusi nyata untuk menyelesaikan masalah dengan mengimplementasikan teknologi informasi dan komunikasi dan memperhatikan prinsip keberlanjutan serta memahami kewirausahaan berbasis teknologi.				

	<p>CPL-5</p> <p>CPL-6</p> <p>CPL-7</p> <p>CPL-9</p> <p>CPL-10</p> <p><i>PLO-1</i></p> <p><i>PLO-2</i></p> <p><i>PLO-3</i></p> <p><i>PLO-5</i></p> <p><i>PLO-6</i></p> <p><i>PLO-7</i></p> <p><i>PLO-9</i></p> <p><i>PLO-10</i></p>	<p>Mampu menerapkan teori statistika pada metode statistika</p> <p>Mampu merancang, melaksanakan, dan mengevaluasi pengumpulan data dengan metodologi yang tepat</p> <p>Mampu menggunakan perangkat komputasi modern untuk menyelesaikan permasalahan statistic</p> <p>Mampu menerapkan metode statistika dengan tepat serta mengevaluasinya untuk menganalisis permasalahan teoritis dan riil</p> <p>Mampu menerapkan metode Statistika Bisnis, Industri, Ekonomi Finansial, Sosial Kependudukan, Lingkungan atau Kesehatan yang berbasis Komputasi pada permasalahan riil</p> <p><i>Able to demonstrate attitudes and characters that reflect: being pious to God Almighty, having ethics and integrity, virtuous character, sensitive and concern with social and environmental issues, respecting cultural differences and pluralism, upholding law enforcement, prioritizing the interests of the nation and the wider community, through creativity and innovation, excellence, strong leadership, synergy, and other potentials to achieve maximum results</i></p> <p><i>Be able to study and utilize science and technology in order to apply it to the field of statistics, and able to make appropriate decisions from the results of their own work or group work in the form of a final project report or other forms of learning activities whose output is equivalent to a final project through logical, critical, systematic, and innovative thinking</i></p> <p><i>Able to manage self-learning and develop oneself as a lifelong learner to compete at national and international levels, in order to make a real contribution to solving problems by implementing information and communication technology and paying attention to sustainability principles and understanding technology based entrepreneurship</i></p> <p><i>Able to apply statistical theory to statistical methods</i></p> <p><i>Able to design, collect and manage data with the right methodology</i></p> <p><i>Able to use modern computing devices to solve statistical problems</i></p> <p><i>Able to apply statistical methods correctly and evaluate them to analyze theoretical and real problems</i></p> <p><i>Able to apply Computing-based Business, Industrial, Financial Economic, Social Population, Environmental or Health Statistics methods to real problems</i></p>
<p>apaian Pembelajaran Mata Kuliah (CPMK)/ <i>CLO</i></p>		
<p>CPMK 1. Mampu menunjukkan sikap dan karakter yang mencerminkan: ketakwaan kepada Tuhan Yang Maha Esa, etika dan integritas, berbudi pekerti luhur, peka dan peduli terhadap masalah sosial dan lingkungan, menghargai perbedaan budaya dan kemajemukan, menjunjung tinggi penegakan hukum mendahulukan kepentingan bangsa dan masyarakat luas, melalui kreatifitas dan inovasi, eksekusi, kepemimpinan yang kuat, sinergi, dan potensi lain yang dimiliki untuk mencapai hasil yang maksimal.CPMK 2. Mampu menggunakan piranti lunak (SPSS, SAS, R) untuk analisis survival</p> <p>CPMK 2. Mampu mengkaji dan memanfaatkan ilmu pengetahuan dan teknologi dalam rangka mengaplikasikannya pada bidang Statistika, serta mampu mengambil keputusan secara tepat dari hasil kerja sendiri maupun kerja kelompok dalam bentuk laporan tugas akhir atau bentuk kegiatan pembelajaran lain yang</p>		

luarannya setara dengan Tugas Akhir melalui pemikiran logis, kritis, sistematis dan inovatif

CPMK 4. Mampu mengidentifikasi, memformulasi dan menyelesaikan problem di bidang kedokteran/kesehatan menggunakan analisis survival

CPMK 3. Mampu mengelola pembelajaran diri sendiri, dan mengembangkan diri sebagai pribadi pembelajar sepanjang hayat untuk bersaing di tingkat nasional, maupun internasional, dalam rangka berkontribusi nyata untuk menyelesaikan masalah dengan mengimplementasikan teknologi informasi dan komunikasi dan memperhatikan prinsip keberlanjutan serta memahami kewirausahaan berbasis teknologi

CPMK 4. Mampu menerapkan teori statistika pada metode statistika

CPMK 5. Mampu merancang, melaksanakan, dan mengevaluasi pengumpulan data dengan metodologi yang tepat

CPMK 6. Mampu menggunakan perangkat komputasi modern untuk menyelesaikan permasalahan statistik

CLO.1 Able to demonstrate attitudes and characters that reflect: being pious to God Almighty, having ethics and integrity, virtuous character, sensitive and concern with social and environmental issues, respecting cultural differences and pluralism, upholding law enforcement, prioritizing the interests of the nation and the wider community, through creativity and innovation, excellence, strong leadership, synergy, and other potentials to achieve maximum results.

CLO.2 Able to use software (SPSS, SAS, R) for survival analysis

CLO.2 Be able to study and utilize science and technology in order to apply it to the field of statistics, and able to make appropriate decisions from the results of their own work or group work in the form of a final project report or other forms of learning activities whose output is equivalent to a final project through logical, critical, systematic, and innovative thinking.

CLO.4 Able to identify, formulate and solve problems in the medical/health sector using survival analysis

CLO. 3 Able to manage self-learning and develop oneself as a lifelong learner to compete at national and international levels, in order to make a real contribution to solving problems by implementing information and communication technology and paying attention to sustainability principles and understanding technology-based entrepreneurship

CLO. 4 Able to apply statistical theory to statistical methods

CLO. 5 Able to design, collect and manage data with the right methodology

CLO. 6 Able to use modern computing devices modern computing tools to solve statistical problems

Matrik CPL – CPMK
PLO-CLO Matrix


	CPL-1	CPL-2	CPL-3	CPL-5	CPL-6	CPL-7	CPL-9	CPL-10
CPMK-1	V							
CPMK-2		V						
CPMK-3			V					
CPMK-4				V				
CPMK-5					V		V	
CPMK-6						V		V

Deskripsi Singkat MK/
Course Description

Kerja Praktik merupakan mata kuliah yang bertujuan agar mahasiswa mampu belajar bekerja dan mampu menerapkan metode statistika di dunia kerja. Strategi pembelajaran yang digunakan adalah praktik langsung di lembaga swasta atau pemerintah selama 1 bulan minimal 20 hari kerja efektif (@7 jam per hari) dan pelaporan selama 2 bulan (@3,5 jam per hari). Setiap mahasiswa dibimbing oleh dosen pembimbing di departemen dan instansi. Penilaian didasarkan pada laporan kerja praktek.

	<p><i>Practical Work is a course that aims to enable students to learn to work and be able to apply statistical methods in the world of work. work and be able to apply statistical methods in the world of work. The learning strategy The learning strategy used is direct practice in private or government institutions for 1 month for a minimum of 20 effective working days (@7 hours per day) and reporting for 2 months (@3.5 hours per day). Each student is mentored by a supervisor in the department and agency. Assessment is based on the practical work report.</i></p>						
Bahan Kajian: Materi Pembelajaran/ Course Material	<p>Dasar Sains, Teori Statistika, Deskripsi dan Eksplorasi, Data Processing, Metode Statistika untuk Kesehatan <i>Basic Science, Statistical Theory, Data Collection, Description and Exploration, Computing and Data Processing, Modeling, Health and Environment</i></p>						
Pustaka/ References	Utama/Primary:						
	1. Working Guidelines Practice and Final Project Statistics - ITS						
	Pendukung/Secondary:						
Dosen Pengampu/ Lecturers	Dr. Muhammad Sjahid Akbar, S.Si., M.Si.; Santi Wulan Purnami, S.Si, M.Si						
Matakuliah syarat/ Pre-requisite Course	<p>Analisis Regresi, Analisis Data Kategorik <i>Regression Analysis, Categorical Data Analysis</i></p>						
Mg Ke- Week	Kemampuan akhir tiap tahapan belajar (Sub-CPMK) <i>Final capability for each learning step</i>	Penilaian <i>Evaluation</i>		Bantuk Pembelajaran, Metode Pembelajaran, Penugasan Mahasiswa, [Estimasi Waktu] <i>Learning Format Learning Methods Assignment for Student [Estimated Time]</i>		Materi Pembelajaran [Pustaka] <i>Learning Material [References]</i>	Bobot Penilaian (%) <i>Evaluation Weight (%)</i>
		Indikator <i>Indicator</i>	Kriteria & Bentuk	Luring <i>Offline</i>	Daring <i>Online</i>		

			<i>Criteria and Format</i>				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		1.					
		1.					
		1.					
		1.					
8	ETS/Midterm						
		1.					
		1.					
16	Evaluasi Akhir Semester / Ujian Akhir Semester/<i>Final Exam</i>						

	RENCANA ASESMEN & EVALUASI <i>Assessment and Evaluation Plan</i> Program Studi Sarjana Statistika / <i>Statistics Undergraduate Program</i> PENGANTAR ANALISIS SURVIVAL / INTRODUCTION OF SURVIVAL ANALYSIS		RA&E
			SLK-18
Kode MK: SS234418 <i>Course Code:</i> SS234418	Bobot sks (T/P): 3 <i>CREDITS : 3</i>	Rumpun MK: Prodi S1 <i>Course cluster:</i> S1 Study Program	Smt: VII <i>Semester: VII</i>
OTORISASI <i>AUTHORIZATION</i>	Penyusun <i>Author</i> Dr. Muhammad Sjahid Akbar, S.Si., M.Si.	Koordinator RMK <i>Coordinator of course cluster</i>	Kaprodi <i>Head of Department</i> Dr. Kartika F, M.Si.

Mg ke (1)	Sub CP-MK (2)		Bentuk Asesmen (Penilaian) / Evaluation Type (3)	Bobot / Scoring (%) (4)
	No	Kemampuan akhir / Final Capability		
	1	Kedisiplinan <i>discipline</i> Hasil proyek <i>Team based Project</i>	Tugas <i>Task</i>	10
	2	Pengetahuan di lokasi kerja praktek <i>Knowledge at the beginning of practical</i> Kognitif - Tugas <i>/ Cognitive - Assignment</i>	Tugas <i>Task</i>	10
	3	Kemampuan fomulasi masalah <i>ability of problem formulation</i> Hasil proyek <i>Team based Project</i>	Tugas <i>Task</i>	10
	4	Pengetahuan ketika KP telah selesai <i>Knowledge when KP has been completed</i> Hasil proyek <i>Team based Project</i>	Tugas <i>Task</i>	20
	5	Analisis KP <i>Analysis of practical work</i> Hasil proyek <i>Team based Project</i>	Tugas <i>Task</i>	25
	6	Laporam KP <i>Writing of practical work</i> Hasil proyek <i>Team based Project</i>	Tugas <i>Task</i>	25
Total Bobot Penilaian				100%