

MODULE HANDBOOK
**QUALITY
MANAGEMENT**



**BACHELOR DEGREE PROGRAM
DEPARTEMENT OF STATISTICS
FACULTY OF SCIENCE AND DATA ANALYTICS
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

ENDORSEMENT PAGE

	<p>MODULE HANDBOOK QUALITY MANAGEMENT DEPARTMENT OF STATISTICS INSTITUT TEKNOLOGI SEPULUH NOPEMBER</p>
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Proses Process	Penanggung Jawab Person in Charge			Tanggal Date
	Nama Name	Jabatan Position	Tandatangan Signature	
<i>Perumus Preparation</i>	Dr.Drs Agus Suharsono, MS	Dosen <i>Lecturer</i>		March 28, 2019
<i>Pemeriksa dan Pengendalian Review and Control</i>	Dr.Drs Agus Suharsono, MS	Tim kurikulum <i>Curriculum team</i>		April 15, 2019
<i>Persetujuan Approval</i>	Wibawati, S.Si, M.Si	Koordinator RMK <i>Course Cluster Coordinator</i>		July 17, 2019
<i>Penetapan Determination</i>	Dr. Kartika Fithriasari, M.Si	Kepala Departemen <i>Head of Department</i>		July 30, 2019


MODULE HANDBOOK

EXPLORATIVE DATA ANALYSIS

Module name	Quality Management	
Module level	Undergraduate	
Code	KS184530	
Course (if applicable)	Quality Management	
Semester	Fifth Semester (Ganjil)	
Person responsible for the module	Dr.Drs Agus Suharsono, MS	
Lecturer	Dr.Drs Agus Suharsono, MS	
Language	Bahasa Indonesia and English	
Relation to curriculum	Undergraduate degree program, mandatory , 5 th semester.	
Type of teaching, contact hours	Lectures, <50 students	
Workload	<ol style="list-style-type: none"> 1. Lectures : 3 x 50 = 150 minutes per week. 2. Exercises and Assignments : 3 x 60 = 180 minutes (3 hours) perweek. 3. Private learning : 3 x 60 = 180 minutes (3 hours) per week 	
Credit points	3 credit points (SKS)	
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to sit in the exams.	
Mandatory prerequisites	-	
Learning outcomes and their corresponding PLOs	<p><i>CPMK.1 Can explain the concepts and principles of Quality Management</i></p> <p><i>CPMK.2 Able to formulate quality management problem solving</i></p> <p><i>CPMK.3 Able to apply Statistics method in Quality Management to perform data analysis</i></p> <p><i>CPMK.4 Able to identify, formulate, and solve statistical problems using Quality Management techniques</i></p> <p><i>CPMK.5 Able to use the computing techniques and modern computer devices needed to solve Quality Management problems</i></p> <p><i>CPMK.6 Have knowledge of current and upcoming issues related to the field of Quality Management</i></p> <p><i>CPMK.7 Able to communicate effectively and cooperate in interdisciplinary and multidisciplinary teams</i></p> <p><i>CPMK.8 Has professional responsibilities and ethics</i></p>	<p>PLO – 2</p> <p>PLO – 3</p> <p>PLO – 4</p>

	<i>CPMK.9 Able to motivate yourself to think creatively and learn throughout life</i>	
Content	<i>Quality Management (MM) is one of the study materials in the field of Business and Industry. If in MCC studied techniques monitoring the quality of products and processes, then in MM the main point of learning is to learn how to manage and improve quality continuously. Therefore in mm courses the principles of quality management. The learning strategy is through discussions, presentations, assignments and equipped with field lecture activities. Field lecture is a visit to the company to know the implementation of quality management in the company, both manufacturing and services.</i>	
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> • In-class exercises • Assignment 1, 2, 3 • Mid-term examination • Final examination 	
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.	
Reading list	<ol style="list-style-type: none"> 1. Desmond, Bell; Bride, Philip Mc; and Wilson, George. 1994. Managing Quality the institute of management. 1th edition. Butterworth Heineman Ltd. 2. International Standar ISO 9001:2008 3. Pande; S, Peter; Neuman, Robert P.; and Cavanagh, Roland R. 2007. The six sigma Way, bagaimana GE, Motorola, dan perusahaan terkenal lainnya mengasah kinerja mereka. Penerbit Andi Yogyakarta. 	



	Program Studi	Sarjana, Departemen Statistika, FMKSD-ITS/ <i>Bachelor, Statistics Department, FMKSD-ITS</i>
	Mata Kuliah	Manajemen Mutu/ <i>Quality Management</i>
	Kode Mata Kuliah	KS184530
	Semester/SKS	V/3
	MK Prasyarat	-
RP-S1	Dosen Pengampu	Dr.Drs Agus Suharsono, MS


Bahan Kajian/Study Materials	Dasar Sains, Teori Statistika, Pengumpulan Data, Deskripsi dan Eksplorasi, Komputasi dan Data Processing, Pemodelan, Industri dan Bisnis <i>Basic Design, Statistical Theory, Data Collection, Description and Exploration, Computing and Data Processing, Modeling, Industry and Business</i>
CPL yang dibebankan MK/PLO	CPL-2 Mampu merancang dan melaksanakan pengumpulan data dengan metodologi yang benar CPL-3 Mampu menganalisis data dengan metode statistika yang tepat dan menginterpretasikannya CPL-4 Mampu mengidentifikasi, memformulasi, dan menyelesaikan masalah statistika di berbagai bidang terapan <i>CPL-2 Able to design and implement data collection with the correct methodology</i> <i>CPL-3 Able to analyze data with the right statistical methods and interpret it</i> <i>CPL-4 Able to identify, formulate, and solve statistical problems in various applied fields</i>
CP-MK/CLO	CPMK.1 Dapat menjelaskan konsep dan prinsip Manajemen Mutu CPMK.2 Mampu memformulasikan penyelesaian masalah Manajemen Mutu CPMK.3 Mampu mengaplikasikan metode Statistika dalam Manajemen Mutu untuk melakukan analisis data CPMK.4 Mampu mengidentifikasi, memformulasi, dan menyelesaikan masalah statistika menggunakan teknik Manajemen Mutu CPMK.5 Mampu menggunakan teknik komputasi dan perangkat komputer modern yang diperlukan untuk menyelesaikan masalah Manajemen Mutu CPMK.6 Memiliki pengetahuan tentang isu terkini dan mendatang yang berkaitan dengan bidang Manajemen Mutu CPMK.7 Mampu berkomunikasi secara efektif dan bekerjasama dalam tim yang interdisiplin dan multidisiplin CPMK.8 Memiliki tanggung jawab dan etika profesi CPMK.9 Mampu memotivasi diri untuk berpikir kreatif dan belajar sepanjang hayat <i>CPMK.1 Can explain the concepts and principles of Quality Management</i> <i>CPMK.2 Able to formulate quality management problem solving</i> <i>CPMK.3 Able to apply statistical methods in Quality Management to perform data analysis</i> <i>CPMK.4 Able to identify, formulate, and solve statistical problems using Quality Management techniques</i> <i>CPMK.5 Able to use computing techniques and modern computer devices needed to solve Quality Management problems</i> <i>CPMK.6 Have knowledge of current and upcoming issues related to the field of Quality Management</i> <i>CPMK.7 Able to communicate effectively and cooperate in interdisciplinary and multidisciplinary teams</i> <i>CPMK.8 Has professional responsibilities and ethics</i> <i>CPMK.9 Able to motivate yourself to think creatively and learn throughout life</i>




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Pertemuan Meeting	Kemampuan Akhir Sub CP-MK CLO	Keluasan (materi pembelajaran) Extent (Learning Materials)	Metode Pembelajaran Learning Methods	Estimasi Waktu Estimated Time	Bentuk Evaluasi Evaluation Form	Kriteria dan Indikator Penilaian Assessment Criteria and Indicator	Bobot Penilaian Scoring Weight
1	1. Dapat menjelaskan 8 prinsip Manajemen mutu. <i>1. Can explain 8 principles of quality management.</i>	Pengertian Manajemen Mutu. <i>Definition of Quality Management</i>	Diskusi Ceramah interaktif SCL <i>Discussion Interactive lectures SCL</i>	150 menit <i>150 minutes</i>	Tes, Tugas dan Observasi (T-O-T-Sp) <i>Test, Assignment, Observation (T-O-T-Sp)</i>	1. Dapat menjelaskan dan memberi contoh 8 prinsip manajemen. 2. Dapat menyebutkan 3 model pengembangan mutu. <i>1. Can explain and give examples of 8 management principles. 2. Can mention 3 quality development models.</i>	10%/10%
2-3	2. Dapat menerapkan beberapa klausul dalam ISO 9000:2001. <i>2. Can apply multiple clauses in ISO 9000:2001.</i>	ISO 9001:2008 klausul 4.1 Sistem Manajemen Mutu : ISO 9000:2008 Klausul 4.2. <i>ISO 9001:2008 Clause 4.1 Quality Management System : ISO 9000:2008 Clause 4.2.</i>	PBL Diskusi Praktek PBL <i>Discussion Practice</i>	300 menit <i>300 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	1. Dapat meneapkan persyaratan umum SMM ISO 9000:2008 2. Dapat menentukan visi misi, kebijakan mutu dan sasaran mutu. <i>1. Can apply the general requirements of SMM ISO 9000:2008 2. Can determine the vision of the mission, quality policy and quality goals.</i>	25%/35%
4-6	3. Dapat menjelaskan Tanggung Jawab manajemen. <i>3. Can explain management responsibilities.</i>	SMM : ISO 9000:2008 Klausul 5. <i>SMM : ISO 9000:2008 Clause 5.</i>	PBL Diskusi Ceramah interaktif PBL <i>Discussion</i>	450 menit <i>450 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	Dapat mengidentifikasi : 1. Tanggung jawab manajemen. 2. Manajemen representatif. <i>Can identify: 1. Management responsibilities. 2. Representative management.</i>	10%/45%



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Pertemuan <i>Meeting</i>	Kemampuan Akhir Sub CP-MK <i>CLO</i>	Keluasan (materi pembelajaran) <i>Extent (Learning Materials)</i>	Metode Pembelajaran <i>Learning Methods</i>	Estimasi Waktu <i>Estimated Time</i>	Bentuk Evaluasi <i>Evaluation Form</i>	Kriteria dan Indikator Penilaian <i>Assessment Criteria and Indicator</i>	Bobot Penilaian <i>Scoring Weight</i>
			<i>Interactive lectures</i>				
7	4. Dapat menjelaskan Pengelolaan sumber Daya dan Realisasi Produk. <i>4. Can explain Resource Management and Product Realization.</i>	SMM : ISO 9000:2008 Klausul, 6,7 dan 8. <i>SMM : ISO 9000:2008 Clauses, 6,7 and 8.</i>	PBL Diskusi Ceramah interaktif <i>PBL Discussion Interactive lectures</i>	150 menit <i>150 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	Dapat mengidentifikasi : 1. Pengelolaan SDM dan 2. Realisasi produk serta 3. Pengukuran analisis dan perbaikan <i>Can identify:</i> 1. <i>HR management and</i> 2. <i>Product realization as well as</i> 3. <i>Measurement of analysis and improvement</i>	10%/55%
8	ETS/Midterm						
9-10	5. Dapat menerapkan metode statistika dalam manajemen Mutu <i>5. Can apply statistical methods in Quality management</i>	Pengukuran, analisis dan perbaikan. <i>Measurement, analysis and improvement.</i>	PBL Diskusi Ceramah interaktif <i>PBL Discussion Interactive lectures</i>	300 menit <i>300 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	Dapat menerapkan : 1. Tujuh alat statistika dala manajemen 2. Metode statistika yang lain dalam Manajemen <i>Can apply :</i> 1. <i>Seven statistical tools in management</i> 2. <i>Other statistical methods in Management</i>	10%/65%
11-12	6. Dapat menerapkan Six sigma untuk peningkatan mutu.	Pendekatan Six Sigma. <i>Six Sigma approach.</i>	PBL Diskusi Ceramah interaktif	300 menit <i>300 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	1. Dapat mengidentifikasi 2. Dapat mengimplementasikan model DMAIC <i>1. Can identify</i>	20%/85%

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Pertemuan <i>Meeting</i>	Kemampuan Akhir Sub CP-MK <i>CLO</i>	Keluasan (materi pembelajaran) <i>Extent (Learning Materials)</i>	Metode Pembelajaran <i>Learning Methods</i>	Estimasi Waktu <i>Estimated Time</i>	Bentuk Evaluasi <i>Evaluation Form</i>	Kriteria dan Indikator Penilaian <i>Assessment Criteria and Indicator</i>	Bobot Penilaian <i>Scoring Weight</i>
	6. <i>Can apply Six sigma for quality improvement.</i>		<i>PBL Discussion Interactive lectures</i>			2. <i>Can implement the DMAIC model</i>	
13-15	7. Dapat menerapkan Lean six sigma untuk peningkatan mutu. 7. <i>Can apply Lean six sigma for quality improvement.</i>	Lean Six Sigma. <i>Lean Six Sigma</i>	Ceramah Interaktif, Diskusi, dan Latihan Soal <i>Discussion Interactive lectures, and Exercise</i>	450 menit <i>450 minutes</i>	(T-O-T-Sp) <i>(T-O-T-Sp)</i>	Dapat mengidentifikasi : 1. Jenis waste dan . pemborosan 2. Dapat menjelaskan alat-alat lean six sigma 3. Dapat mengimplementasikan model DMAIC <i>Can identify:</i> 1. <i>Type of waste and . Waste</i> 2. <i>Can explain the tools lean six sigma</i> 3. <i>Can implement the DMAIC model</i>	15%/100%
16	EAS/Finalterm						

PUSTAKA/References :

1. International Standar ISO 9001:2008
2. Bell Desmond, Philip Mc Bride & , George Wilson, " Managing Quality" the institute of management, 1th.,ed., Butterworth Heineman Ltd.1994
3. Pande, Peter S, Robert P.Neuman,Roland R Cavanagh, "The six sigma Way, bagaimana GE,Motorolla,dan perusahaan terkenal lainnya mengasah kinerja mereka", Penerbit Andi Yogyakarta,2007