

MODULE HANDBOOK
**OPERATIONS
MANAGEMENT**



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

ENDORSEMENT PAGE




MODULE HANDBOOK OPERATIONS MANAGEMENT DEPARTMENT OF STATISTICS INSTITUT TEKNOLOGI SEPULUH NOPEMBER

Proses Process	Penanggung Jawab Person in Charge			Tanggal Date
	Nama Name	Jabatan Position	Tandatangan Signature	
<i>Perumus Preparation</i>	Dr. Muhammad Mashuri, M.T	Dosen <i>Lecturer</i>		March 28, 2019
<i>Pemeriksa dan Pengendalian Review and Control</i>	Dr. Muhammad Mashuri, M.T ; Dr.Drs Agus Suharsono, MS ; Wibawati, S.Si, M.Si	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


	<i>CPMK.9 Able to motivate yourself to think creatively and learn throughout life</i>	
Content	<i>Operations Management (MO) is one of the main courses in the field of industry. By studying Operations Management, the application of Statistical Methods in the industry becomes more specific. In MO will be studied 10 decisions that are often done in the factory, namely product design, process design, quality management, pasitas planning, location management, facility layout planning, human resource management, supply chain management, inventory management, scheduling and maintenance. To achieve this, the learning strategy used is discussion, training, and training that is equipped with field lecture activities, namely visiting the factory to find out the implementation of Operations Management in the company.</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. Collier, David Alan. 2009. Operation Management. Cengage Learning. 2. Heiser, Jay and Render, B. 2011. Operation Management. 11th edition. New Jersey : Prentice Hall International. 3. Schroeder, Roger G. 2007. Operation Management, Contemporary Concepts and Cases. McGraw-Hill/Irwin. 	



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	Mata Kuliah	Manajemen Operasi
	Kode Mata Kuliah	KS184411
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	MK Prasyarat	-
RP-S1	Dosen Pengampu	Dr. Muhammad Mashuri, M.T ; Dr.Drs Agus Suharsono, MS ; Wibawati, S.Si, M.Si

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 10 bidang keputusan dalam Manajemen Operasi CPMK.2 Mampu memformulasikan penyelesaian masalah Manajemen Operasi CPMK.3 Mampu mengaplikasikan metode Statistika dalam Manajemen Operasi untuk melakukan analisis data CPMK.4 Mampu mengidentifikasi, memformulasi, dan menyelesaikan masalah statistika menggunakan teknik Manajemen Operasi CPMK.5 Mampu menggunakan teknik komputasi dan perangkat komputer modern yang diperlukan untuk menyelesaikan masalah Manajemen Operasi CPMK.6 Memiliki pengetahuan tentang isu terkini dan mendatang yang berkaitan dengan bidang Manajemen Operasi 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 10 areas of decision in Operations Management</i> <i>CPMK.2 Able to formulate operations management problem solving</i> <i>CPMK.3 Able to apply statistical methods in Operations Management to perform data analysis</i> <i>CPMK.4 Able to identify, formulate, and solve statistical problems using Operations Management techniques</i> <i>CPMK.5 Able to use computing techniques and modern computer devices needed to solve Operations Management problems</i> <i>CPMK.6 Have knowledge of current and future issues related to the field of Operations 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 <i>Sub CLO Final Capability</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 Indicator and Criteria</i>	Bobot Penilaian <i>Score Weight</i>
1	1. Dapat menjelaskan MO dan prduktivitas serta menghitung indeksinya. <i>1. Can explain OM and prduktivitas and calculate the index.</i>	Pengertian MO & Produktivitas <i>Definition of OM & Productivity</i>	1.SCI 2.Diskusi 3.Latihan <i>1.SCI 2.Discussions 3.Exercise</i>	150 menit <i>150 minutes</i>	TT-O-P-L <i>TT-O-PL</i>	1. Mampu menjelaskan perbedaan barang dan jasa menurut 10 keputusan MO 2. Mampu menghitung indeks produktivitas <i>1. Able to explain differences in goods and services according to 10 MO decisions 2. Able to calculate productivity index</i>	10%/10%
2,3	2. Dapat menjelaskan strategi Global. <i>2. Can explain the Global strategy.</i>	Strategi Global <i>Global Strategy</i>	1. SCI 2.Diskusi 3.Latihan <i>1.SCI 2.Discussions 3.Exercise</i>	300 menit <i>300 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Mampu menjelaskan Visi, misi dan membuat analisi SWOT. 2. Mampu menjelaskan pentingnya Strategi Global <i>1. Able to explain vision, mission and make SWOT analysis. 2. Able to explain the importance of Global Strategy</i>	5%/15%
4,5	3. Dapat menjelaskan hubungan manajemen mutu SPC dan seven tools <i>3. Can explain the relationship of SPC</i>	Mengelola Kualitas <i>Quality Management</i>	Presentasi Latihan soal & Diskusi (P-G-LS-D)	300 menit <i>300 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Dapat menejelaskan hubungan Manajemen Mutu dan SPC 2. Dapat menngunakan beberapa alat dari seven tools <i>1. Can explain the relationship of Quality Management and SPC</i>	10%/25%




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	<i>quality management and seven tools</i>		<i>Presentation, Exercise, and Discussion</i>			<i>2. Can use multiple tools from seven tools</i>	
6,7	4. Dapat menjelaskan strategi dalam siklus hidup produk dan faktor yang mempengaruhi munculnya produk baru. <i>4. Can explain strategies in the product lifecycle and factors that influence the emergence of new products.</i>	Desain Produk dan jasa <i>Product and Services Design</i>	P-G-LS-D <i>P-G-LS-D</i>	300 menit <i>300 minutes</i>	TT-0-P-L <i>TT-0-PL</i>	1. Dapat menjelaskan strategi dalam siklus hidup produk. 2. Dapat memilih Rancangan produk (barang dan jasa) <i>1. Can explain strategies in the product lifecycle.</i> <i>2. Can choose product design (goods and services)</i>	5%/30%
8	ETS/Midterm						
9	5. Dapat menjelaskan jenis proses dan menentukan jumlah mesin berdasarkan kapasitas produksi. <i>5. Can explain the type of process and determine the number of machines based on production capacity.</i>	Strategi proses dan Perencanaan kapasitas <i>Process Strategy and Capacity Planning</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Dapat menejelaskan beberapa jenis proses . 2. Mampu menentukan jumlah mesin berdasarkan kapasitas <i>1. Can explain some types of processes.</i> <i>2. Able to determine the number of machines based on capacity</i>	10%/40%
10	6. Dapat menentukan Lokasi minimal	Strategi Lokasi <i>Location Strategy</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit	TT-P-O <i>TT-P-O</i>	Dapat menentukan Lokasi berdasarkan metode :	10%/50%



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	berdasarkan 2 metode. <i>6. Can determine the Location based on at least 2 methods.</i>			<i>150 minutes</i>		1. BEP 2. Letak Geografis <i>Can determine the Location based on the method:</i> 1. <i>Bep</i> 2. <i>Geographic Location</i>	
11	7. Dapat menentukan tata letak berdasarkan 2 metode. <i>7. Can determine the layout based on 2 methods.</i>	Strategi Tata Letak Fasilitas <i>Facility Layout Strategy</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	Dapat menentukan tata letak fasilitas berdasarkan metode : 1. Jarak terkecil 2. Keseimbangan Lintas Produksi <i>Can determine the layout of the facility based on the method:</i> 1. <i>Smallest distance</i> 2. <i>Cross-Production Balance</i>	5%/55%
12	8. Dapat menjelaskan dan menentukan strategi SDM. <i>8. Can explain and determine hr strategy.</i>	Sumber Daya Manusia <i>Human Resources</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Dapat menentukan pemilihan SDM berdasarkan metode kerja dan 2. Menjelaskan strategi SDM yg paling baik <i>1. Can determine the selection of human resources based on working methods and</i> <i>2. Explaining the best HR strategy</i>	10%/65%
13	9. Dapat menentukan Lokasi minimal berdasarkan 3 metode. <i>9. Can determine the Location based on at least 3 methods.</i>	Manajemen Rantai Pasokan <i>Supply Chain Management</i>	P-G-LS-D KL: Kuliah Lapangan <i>P-G-LS-D</i> KL: <i>Field Lecture</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Dapat menjelaskan beberapa macam strategi rantai pasokan 2. Dapat memilih Rantai pasokan dengan metode pemeringkat faktor <i>1. Can explain several kinds of supply chain strategies</i>	5%/70%

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						<i>2. Can choose Rantai supply by factor rating method</i>	
14	10. Dapat menentukan penjadwalanan. <i>10. Can specify scheduling.</i>	Penjadwalan <i>Scheduling</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	Dapat menentukan Penjadwalan pada kasus 1 mdan 2 mesin berdasarkan : a. Skala prioritas b. Metode johnson <i>Can determine scheduling in the case of 1 and 2 machines based on:</i> c. Priority scale d. Johnson Method	10%/90%
15	11. Dapat menentukan strategi manajemen Perawatan. <i>11. Can determine the management strategy of Care.</i>	Manajemen Perawatan <i>Care Management</i>	P-G-LS-D <i>P-G-LS-D</i>	150 menit <i>150 minutes</i>	TT-P-O <i>TT-P-O</i>	1. Dapat meneghitung keandalan suatu sitem 2. Dapat menentukan model perawatan dan MTBF <i>1. Can calculate the reliability of a system</i> <i>2. Can determine the model of maintenance and MTBF</i>	10%/100%
16	EAS/Finalterm						

PUSTAKA/References :

1. Heiser Jay and Barry Radder, Operation Management, Prentice Hall International, New Jersey, 2011
2. Dervitsiotis, Kostas N, Operation Management, Mc Graw Hill International Book Co, Singapore, 1984
3. Monks, Joseph, Operation Management, Theory and problems, third Edition, MG Hill, Singapore, 1987
4. Buffa Elwood S & Rakesh K Sarin, Modern Production & Operations Management, 8th Ed, John Willey & Sons Inc., Singapore, 1985