

Course Description: Operations Management

1- Basic Information:

Course Name	Operations Management
Course ID	BQM501
Contact Hours (Registered Sessions)	24 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0
Contact Hours (Synchronized Sessions)	24
Mid Term Exam	STATISTIC OVER STORESTICS
Exam	75 min _ </th
Registered Sessions Work Load	48 50 50 50 50 50 50 50 50 50 50 50 50 50
Synchronized Session Work Load	18 50 2 50 50 50 50
Credit Hours	5
Course Level	5 AUST AUST AUST

2- Pre-Requisites:

Course	ID
Fundamentals of Management	BMN401
Economic and Administrative Mathematics	GMA403

3- Course General Objectives:

Operations management refers to the process by which an organization converts inputs (e.g. labor, material, knowledge, equipment) into outputs (goods and services) for both its internal and external markets. In this course, students will understand the functions of operations management and apply techniques to ensure efficient and effective production of goods and services.

This course introduces methods and concepts used to support the production and operations management function. The major economic problems of production management discussed in this course, include: inventory model analysis, inventory control, production planning, production scheduling and control, forecasting, aggregate planning, project management, scheduling, MRP & JIT, and recent advances in operations planning and control. We shall focus on the decision problems that confront operations managers. We will discuss commonly occurring application problems such as the development of a manufacturing and service strategy, capacity planning, quality management, and location analysis. For all problems, solution techniques will be presented.





4- Intended Learning Outcomes (ILO):

The stud	lent should demonstrate the necessary capabilities to carry out the following activities:
Code	Intended Learning Outcomes
ILO1	The student learns and concludes the role of production and operations in business
ILUI	and in economics in general.
	The student learns about the problems and issues facing operations managers, and
ILO2	concludes the main strategic options that companies face when choosing and
	implementing operations.
ILO3	Students develop terminology, concepts, ideas, and tools to deal with production
	problems and issues in order to obtain a competitive advantage through operations.
	The students identify the inefficiency and ineffectiveness in production and
ILO4	operations process, and propose the adequate changes or major redesigns to improve
	the process.
ILO5	Students analyze processes using appropriate performance measures, such as flow
	time, productivity, and throughput in different situations in the process.
	The course builds a holistic foundation for students to understand decision-making
ILO6	that includes products and services, quality, processes, ability to choose the facility,
	and supply chain decisions that are essential to the success of the operations of any
	business organization.
ILO7	The student studies and discusses issues inherent in operations management, and
	understands manufacturing functions in the supply chain.
ILO8	The course introduces students to a variety of tools and techniques that assist process
	managers in exploring alternative decision-making methods.
ILO9	Students understand the specific methods of planning production operations, the
	importance of process control, planning and inventory management
H 010	The course provides students with concepts of quality management practice and
ILO10	quality management tools in the organization through a wide range of analytical
	techniques used in production and operations management.
ПОП	The student applies the inventory and basic materials management methods applied
ILO11	in the processes including independent ordering methods (EOQ), dependent ordering
	methods (MPR), (MRP II), and (ERP);
ILO12	The student is acquainted with the agile production method, concepts, tools and
	techniques, including the concepts of JIT in Toyota production system.





5- Course Syllabus (24 hours of total Recorded Sessions, 24 hours of total synchronized sessions)

RS: Recorded Sessions; SS: Synchronized Sessions;

ILO	Course Syllabus	RS	SS	Туре	Additional Notes
ILO1 ILO2	Unit1: Introduction to Production and Operations Management1.1.Historical development of Production and Operations Management (POM).1.2.Meaning, definition and objectives, scope and significance1.3.Operationsfunctionsandits 			 Exercises Assignments Seminars Projects Practices Others 	Read additional articles
	Unit 2: Productions Nataloger In Syna Unit 2: Productions Systems & Operations management functions and strategies 2.1. The Role of Production Management 2.2. Role of Production System 2.3. Production/Operations Management 2.4. Production System Design: 2.4.1. Intermittent 2.4.2. continuous 2.5. Productivity Improvement and Productive Use of Resources: concepts, factors affecting productivity; productivity Productivity 2.6. Upcoming Issues of Production Systems 2.7. Production Systems and Information Technology			 Exercises Assignments Seminars Projects Practices Others 	Read additional articles





and the		15.3				
202	2.8. Strategic operations management functions		SVU	S	VU SVUS	NU SVU SVI
AND S	2.9. Tactical operations management functions		SV	JE	SVU SVU	SVU SVU SV
SVU	2.10. Service and manufacturing organisations		15	JU	SVU SVU	SVU SVU S
SVU	2.11. Formulating organisational strategy		NS	NC	SVU SV	USVU SVU S
JSV	2.12. Operational strategies in manufacturing		VU	SV	NI SVU SI	U SVU SVU
US	2.13. Operations strategies in service organisations		SVU	5	VU SVU S	NU SVU SVU
TT S	2.14. The transformation model		210		VU SVU	AVU SVU AV
TIT	Unit 3: Designing Products, Services and	UVZ	SV		all SVU	ATT SVU ST
SVU	Processes, and New Product Development		ISV	U	JAN SVU	SVU SVU SY
SVU	3.1. Sources of New Product Ideas		TO O	U	SVUSAN	SVUSAIS
SVU	3.2. Product Development		UP	TK I	SVU	T SVU SVU
AT	3.3. Role of Research and Development		N	NU	- GII SV	all SVU
JSV	3.4. Evaluation of Product Design		TAT	SV	UDITS	USICISU
(ISV	3.5. Design Specifications		VU		Exercises	IT SVU STI
and a	3.6.Product and Service design		SVU		Assignments	Deed edditional
ILO3	3.7. Design of Services and Service	2	2	×	Seminars	Read additional articles
ILO4	Process		2	×	Projects	articles
TIS	3.8. Manufacturing Process Technology 3.9. Process Analysis Aids		SV		Practices	and SVU ST
SVU	3.10. Assembly Drawing		TS		Others	STO AUS
SVU	3.11. Assembly Chart			UU	SVUGI	SVU STIS
SIL	3.12. Flow Process Chart		UP	TE	SVU DY	T GVU DVU
all	3.13. Calculating product		NIS	,vi	T SILI SV	ANT SVU
1 2 v	reliabilities,		TT	SV	USTA	U SVU AVU
IT SV	3.14. Determining value of backup		NU	a	NJ SVU S	UT SVU STI
S S	systems	TT	SVU	2	TT SVU P	T SIU SVU
N	Unit 4: Location decision		AV.	5 3	NU SIL	NU SNI SN
VU >	4.1. Reasons and Importance of location		GI	×	Exercises	SVU DIT SV
TI	decisions		SY		Assignments	Read additional
ILO6	4.2. Factors affecting location decision of	2	15	×	Seminars	articles 🔨 🔍 🔍
ILO8	service, and manufacturing organizations	2	2	×	Projects	Solve additional
SVU	4.3. Basic facilities layout concept		0.0		Practices	exercises
- CAN	4.4. Center of gravity method,		N	×	Others	SVU SVU





and i	TSV WILSVU SVU SVU SVU SVU SVU	15 8	SVU	2	S SID P	ST ST ST
000	4.6. Waiting Line Theory (Single channel only)	VU.	SVU	S	VU SVU S	NU SVU SVI
NU S	4.7. Product layout, process layout,	NU	SVI	J		SVU SVU SV
NU .	cellular layout, fixed position layout	510	101	U		SVU GUI SI
SVU	4.8. Facility location	SV		TI		SVU STIS
STU	4.9. Factors in facility location,	SV	JP	-10		ISVU SVU
GI	4.10. Techniques of location analysis- BEP, Point Rating, central gravity,	TO T	NS	N		OTISVU .
1 240	and Transportation methods	10	TT	SV		U SVU SVU
JSV	Unit 5: Capacity Planning and Facility	00	TAN	S	USVUIS	VU SVU SVU
NIS	Location SVU PLA SVU PLA S	JU S	SVU	5		NU SVU ST
TS	5.1. Aspects of Capacity Planning	TT	SVL			ATT SVU DY
VU S	5.2. Determination and measuring of	24	CVI	1		SVU GULI SV
VU .	Capacity Requirements	SVU	a	T		SVU PYC S
TAN	5.2.1. Design capacity	SVI.) 21	~		SU SVU C
SVU	5.2.2. Effective capacity	CSI	TS	N		STI SVU P
SVU	5.2.3. Actual output 5.3. Evaluation of Alternative Plant Sizes	DV	TT S	N		JSVUGAU
NO 1	5.4. Determination of Equipment	IS	NO.	×	Exercises	T SVU SVE
al	Requirements	AT S	UV		Assignments	Read additional
ILO5	5.5. What is Facility Planning?	US	TT	×		articles
ILO5 ILO6	5.6. Need for Facility Planning	2	2		Projects	Solve additional
HOU	5.7. Facility Planning-Objectives	TT	SVL		Practices	exercises
NO 3	5.8. Types of Layouts	NU	SV	n.	Others	SVU GUI SV
VU:	5.9. Seven major layout strategies,	SVU	a	T		SVU PIT S
IND	5.10. Product versus Process Layout	N/2	121	101		STI SVU S
DVU	5.11. Developing the Process Layout	al	IT S	V.U		STU SVU 3
SVU	5.12. Conventional Approach for) 31	775	N		USVUAUS
ISVI	Developing Process Layout	IS	N.	al		IT SVO STUT
- SI	5.13. Conventional Approach for	TS	VU	D'		N SVU SVU
0 21	Developing Product Layout 5.14. Process flow structure	0.0	-ST.J	S		VU STATSVU
NS	5.15.Process Flow Technologies	N.	CAT I	S		NU SVU AVI
ans	Unit 6: Production Planning, Scheduling,	VV.	Sve	36	VU SVU	au su a
NUT S	Controlling	TI	SV	×	Exercises	STI SVU DY
SVO 1	6.1. Production Planning Concepts and	DY U	15	D	Assignments	Read additional
ILO6	control for Services	SM	20	×	Seminars	articles
ILO8 ILO9	6.2. Aggregate planning and Disaggregation	2	2	×	Projects	Solve additional
ILU9	planning	T CI	JUS		Practices	exercises S
JSV	6.3. Linking Long Term and Short Term	00	TT	×	Others	U DVG SVU
- 61	Planning	155	VV	-		- CAL ST-





0.27	6.4. The Purpose of Aggregate Plans	VU.	AT	S		NU TIT S
MIS	6.5. Steps in Aggregate Planning	VU	DVC	TC		WI SVU S
T E	6.6. Dimensions of Production Capacity	TAT	SV	1 5		DYN GVU D
VU :	6.7. Managerial Importance of Aggregate	SVU	as l	T		SVU STAT S
TAP	Plans	SIL	121			STU SVU
DV-	6.8. Scheduling & Sequencing	651	TS	VU		DVG SVU
SVU	6.9. Situation Requiring Scheduling	SV		N		ISVU ANT
CSX.	6.9.1. Classifying Production Systems	TSI	NE	1		T GITI SVO
317	6.9.2. Scheduling Mass Production	2.4	TT	SV		U PYT SVI
ISV	System	03	YU.	SI		UT SVO GU
A G	6.9.3. Scheduling Batch Production	TAT	SVU	.01		T SVU SV
US	Systems	VU.	at	S		NU STATS
TTS	6.9.4. Scheduling Job Production Systems	VV,	212			SVU SVU C
103 6	6.9.5. General Principles and rules of	XII	SV	2.5		STAT SVU 3
VU.	Scheduling	210	D .	U		SVUGAT
TAN	6.10. Master Production Scheduling:	SVI	1.5	TT		SVU SVU
TIT	Loading, Sequencing, Detailed	CS1	IS	VU		UV2 ITT
SVU	Scheduling, Expediting, Input output	DY	TTS	N		JSVUCAT
AV2	control, Flow time and lateness	TS	NU -			NT SVU DVC
GI	calculations,	a c	UN	SV		OUT SV
J 5V	6.11. Moore's algorithm to minimize	US	TT	SV		NU SVUTEV
TS I	number of late jobs,	TT	SVU	-		TT SVU PY
US	6.12. Johnson's rule for scheduling on	1 - 1	SVL	2		ATT S
ND	two machines	WU.	al	TS		SVU PVETS
5775	Unit 7: Optimizing operations using	SVU	24	1	an svo	all Stor
VU	demand forecasting and capacity	- K	TSI	U		UV2 T
SVU	management	SV	TS	JU		SVU STI
SIL	7.1. Concept of forecast	SV	0 9	15		I SVU DVU
DY CAN	7.2. Trends in customer demand	- 01	TIS	N		U STAT SVU
SVI	7.3. Demand forecasting variables	7 2	TT	SV		N SVU al
ISV	7.4. General Steps in the Forecasting Process	NIS	NU	×	Exercises	UTI SVU DI
1 de	7.5. Importance and Applications of	TI	VU	P	Assignments	NU CUTI SV
ILO7	Forecasts in production/Operations	NO.	COL	×	Seminars	NU DVU Q
ILO6	Management.	2	2	1	Projects	all SVU S
NO Y	7.6. Managing capacity by keeping	TI	SV		Practices	Di all's
VV.	production level	SVU	- a	×	Others	SVU DIE
TAP	7.7. Managing capacity by chasing demand	SVI	121		avu svu	Read additional
SVU	7.8. Managing capacity by managing	C.	TS	VU		articles
SVU	demand	151	2.6	N		Solve additional
CAL	7.9. Forecast demand and manage capacity	TS	N	242		exercises
DAN	7.10. Demand forecasting models and		TT	SV		NO STAT SVI
ISV	methods	U S	NU	C		UTI SVU SU
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0 21	7.11. Qualitative Methods	10.	T	S	N STAT 9	NUSTR
TIS	7.11.1. Judgmental Forecasting	UV	SVC	1.0		WI SVUS
NUT C	7.11.2. Opinion-Capture Techniques	ANT	SV	0.5		DYU SVU D
NO -	7.11.3. Forecasting Based on Cross-	510	- CS	U		SVU GATS
CIN	SV Impact Analysis	SVL)))	TT		SVU SVU
J. T.T.	7.12. Quantitative Methods Of	. 01	TS	VU		STI SVU
SVU	Forecasting	101		NC		JSVUGIT
N2	7.12.1. Main Classes of Quantitative	IS	N.	-X N		T SVU DYC
~ 16	Models	AC	UV	2V		SALL SV
JSV	7.12.2. Least Square Method	0.2	100	SV		VO SVU AV
TS TH	─ 7.12.3. Time Series Analysis	TIS	SVU	0		UNI SVU ST
U	7.12.4. Moving Average	TT	SVL	0		NUTANUS
JUD	7.12.5. Weighted Moving Average	NU	- TI	TS		SVU PIT S
TT	7.12.6. Exponential Smoothing	CVIU	SV	4		CUT SVU -
NU	7.12.7. Regression and Correlation	AI	1SI	U		SVU
SVU	7.12.8. Coefficient of Determination	SV		TT		SVUSTI
CIT	7.13. Application to Different Functional	SV.	0.2	NU.		- CILI SVU
310	Areas	a	TIS	N		UVSTIT SVU
SVL	7.14. Selecting a Suitable Forecasting	15	N W T	51		NJ SVO GI
TOT	Method	ITS	VU	DY.		ST SVU SVI
0.5	7.15. Measures of Forecast Error	0	TT	S		VU STITSV
NT S	7.16. How computers assist in forecasting	10		0	NU SVU	NU SVU
TIS	Unit 8: Just-in-Time and Lean Systems	TT	SV	10		STI SVU P
VU P	8.1. Characteristics of Just-In-Time System	N TO T	SV	0 2		STUCAU
VU:	8.2. Elements of Manufacturing, and The	SVU	A	T		SVU
TAR	Just-In-Time Manufacturing Philosophy	CI	121	U.S.		STI SVU
SVU	8.3. Reconciling EOQ and JIT,	2	TS	NU		JYU SVU
SVU	8.4. JIT Implementation in Industries	5 SV	0.5	X		I SVU ST
NZD.	8.5. Supplier issues,	TS	N -	DV Y		T GIT SVL
IL05	8.6. JIT Purchasing	50	TT	SV	S MIS	Read additional
ILO1	8.7. JIT disadvantages	U D	YU		Exercises	articles
0	8.8. Using lean to improve flow and pull	2	2		Assignments	Solve additional
IL01	8.9. Using lean to perfect organisational	VU	CI		Seminars	exercises
2 S	processes	SVU	2	_	Projects	SVU DVU S
TITS	8.10. The 5 step process for workplace	CITI	SV	×	Practices	ANI SVU -
NO.	organisation	310	15	×	Others	SVUSIO
SVU	8.11. • Hoshin Kanri and the PDCA	SM	2.0	101		SVU STO
STIT	cycle	NO I	UD	NO.		SVU SVU
SVC	8.12. Hoshin Kanri strategies and	100	KTS	SVL		U PITT SVU
ISV	project stages 8 13 Using Jidoka to solve problems	12	N.U.	CN		NI SVU ST
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07	8.14. • Using standard work to	10	T	SVU STITE	NO ST GI
TIS	optimize processes	IN		SVI SVU	ATT SVU ST
NO	8.15. Lean strategies and tactics to	N C		J DV GU	SVU SVI SVI
VV:	eliminate waste,	SVU		I SVU STO	SVU PITTS
TAN	N 8.15.1. The Kanban System	SI		W WI SIU	STI SVU S
SVU	8.15.2. Kaizen system	DY		N SVY AL	SVU GIUS
SVU	8.15.3. Flexible Manufacturing System	SV		TT SVU ST	ISVU DITTS
AL	8.16. Using lean to reduce waste and	- 0		NU GITI SV	OTISVU .
ISV	streamline value flow	75		av Dry a	USVOAU
A SI	8.17. Value-add and none-value add	ITS		TIT SVU D	TT SVU PIT
UP	activities			SVUCATIS	VU STIT SVU
NIS		N.	Y	SV0 510	NU SVU ST
- C	Unit 9: Quality, Planning and Control	TAP		TTT SVU	TT SVU DY
NO 3	9.1. Concepts of quality: product quality and	Nº.		I SVU GILI	SVU GUIISV
NT:	service quality	SVU		a SVU SVU	all side a
31-11	9.2. Determinants and Benefits of good	all		WIT SVU	STI SVU DI
SVU	quality	DV		NJ SVO GI	SVU GALS
CND.	9.3. Responsibility for quality: management,	SV		TT SVU ST	- CUI SVU
131-	design, procurement, operations,	- 0		NU GITT SV	USTISVU.
ISV	marketing, customers' service,	15		allowa	I SVO GUI
a al	packaging etc.	15		PITT SVU P	SVU SVU
UDY	9.4. Costs of quality	U		SVU GUIS	VU STAT SVU
HOC	9.5. Quality Control Methods: objectives,	JU I		SUU SVU	
ILO6	advantages	111		🗷 Exercises	Read additional
ILO8	9.6. Quality tools.	2	2	☑ Assignments	articles
ILO1	9.6.1. Check sheet.	SVU		Seminars	Solve additional
0	9.6.2. Fishbone diagram.	X		E Projects	exercises
SVU	9.6.3. Histogram.	SV		E Practices	SVU STIS
CSIL	9.6.4. Scatter plot.	SV I		🗷 Others	T SUU DVO
340	9.6.5. Pareto chart.			NU STAT SV	U PI T SVU
1 SV	9.6.6. Flowchart.	12		an svo a	NI SV ant
- 51	9.6.7. Statistical process control	TS		STI SVU D'	TI SVU DVU
0 3	(Control chart).			SVUGITS	VU STISVU
TIS	9.7. Statistical process control -Control	N.		SVU SVU	NTI SVU GI
VU C	charts- control charts for variable and	TAP		JUN SVU	NO UNIT SVU DVY
VU P	control charts for attributes	SVC.		I SVU GITI	SVU STIT SV
TIV		SVU		T SVU SVU	all SVU a
210	9.8. Techniques of Quality Management	at	S	U STI SVU	DV SVU D
ILO9	<u>Unit</u> 10: Inventory and Materials	SVI		NI SVO ST	SV STATS
IL01	Management	SV		TT SVU DY	Read additional
0	10.1. Inventory concepts	2	2	NU ANT SV	articles
IL01	10.2. Inventory Costs	00	N.C.	all Svo a	Solve additional
15	10.3. Inventory Modeling	TIS		STI SVU D	exercises
-	10.4. Classical Inventory Model	NU Y		SVU - TE	ALS - AL
UU					



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and a	TI SVO WILL SVO WILL SVO S	1 T 1	SVU	2	ST SIL D	ST ST ST
0 2	10.5. Dependent and independent	NO	AT		Exercises	NO STATIST
JUS	demand	UV.	DVC		Assignments	avu svu av
TING	10.6. Inventory systems- continuous	ND	SV	×	Seminars	CUT SVU DY
NO.	and periodical	DY	V2 I		Projects	SVUSION
SVU	10.7. Basic EOQ Model (with and	SV	- 0	×	Practices	SVUSTIS
CITI	without discount) 10.8. ABC classification Inventory	SV	00		Others	AU SVOL
DYU	10.8. ABC classification Inventory Model	-0	TIS	N		UV2 TT SVU
ISN	10.9. Computation of inventory order	05	TT	5		USVU
1 SV	quantities	USS	VU.	X		TI SVU DIT
U.S.	10.10. Reorder points and optimum	TOT 6	WU	2		VU SVI SVU
N D	number of orders	NO.	ar	S		NO SVETSVI
UT S	10.11. Aggregate Planning	UVP	210			WU SVU W
NUTER S	10.12. Master bill of materials	-XT	SV	1.		YC UV2 TAT
NU.	10.13. Planning for Materials Needs	DYU	15	U		SVU ANI S
SVU	10.14. Material Requirement Planning	SV	0.0	TT		SVUDIC
CANT I	just in Time System Scheduling	C	US	VU.	GU SV	CUT SVU ?
210	Unit 11: Maintenance and Professional	100	TTS	×	Exercises	UPITI SVU
ISV	Safety Management	02			Assignments	U SVU GNI
T SV	11.1. Basic Approaches to maintenance	ITS	NU.	×	Seminars	NT SVU DVU
0.5	11.2. Factors determining the efficiency	TT	SVU		Projects	NU STUSVU
US	and effectiveness of maintenance	, vv	-T		Practices	NU PIT GVI
IS	11.3. Preventive and Remedial	UV	SVL	×	Others	att SV at
NU S	Maintenance 11.4. Causes for component and	AT	SV			SVC SVO SV
SVU.	11.4. Causes for component and equipment failure	DVC	- 0	U		SVU GITI S
ILO2	11.5. Means and objectives of	SV	1 5	TAT		SVU SVU
ILO2 ILO8	measuring maintenance	2	2	VU		AND SVU -
IL00	11.6. Computation of estimates of	0.0	TIS	N		UPINISVU
ISV	reliability	122	10	SV		Read additional
USV.	11.7. Accident frequency rate, injury	MIS	NU	X		articles
USA	frequency rate, and average severity rate		UVZ	2		VU GITI SVU
V D	11.8. Major considerations in setting-up	NO.	an	S		NO PUT SVI
at S	professional Safety program	VV2	212	36		SU SV al
NUT S	11.9. Professional Safety Engineering	AT	SV	9.		STI SVU DY
510	11.10. Objectives and process of	DYC	151	U		SVUSUUS
(MZ	professional Safety Inspection	SV	22	763	SVU Pro	SUPIC
A11	Unit 12: Advance Manufacturing System	1	UD	×	Exercises	SIL SVU
ILO4	12.1. Manufacturing systems:		XIS	X	Assignments	Read additional
ILO 1	Evolution & Competitiveness	2	2	X	Seminars	articles
N	12.2. Classification of Process	TTS	NU	XX	Projects	IN SVU DVU
U	Technology		- 16	~	Practices	





				100				
5	12.3.	Computer	Integrated	10.	N N	thers	NU S	NO IN
S	Mar	nufacturing (CIM)		UN	SVY	U SVU-		
2	<12.4.	Computer-Aided	Design (CAD)	ANT	SVU D'	UV2 TT		
-	12.5.	Group Technolog	gy (GT)	SVU	aus	N STAT		
5	12.6.	Computer-Aided	Process	SVI) DI U	NO SVY		
1	Plan	ning (CAPP)		al	TSVU -	WIT SVL		
Ų	12.7.	Robotics) DV	UV2	SVU SVI		
A	12.8.	Computer-Aided	Process	TS	N STAT	SVU DY		
-10	Plar	ning (CAPP)		170	UN DVU	STIS		
N	12.9.	Manufacturing	Planning and	03	T SVU	SVUS		
5	Con	trol System		MIS	SVU ST	ISVU S		
~	12.10.	Just-In-Time	Manufacturing	V U	CVU DY	TIM		
5	Syst	tem (JIT)		NU	THIS SV	USVET		
1	12.11.	Advanced MRP	Type Systems	INZ	SVUS	JJ SVU		
	12.12.	Optimized	Production	D'I	1510 2	TT SVU		
3	Tecl	hnology (OPT)		SV	TIS	NU ST	SVU	JTT C

6- Assessment Criteria (Related to ILOs)

ISC	Interactive Synchronized Collaboration	Ex	Exams Rpt Reports
PF2F	Presentations and Face-to-Face Assessments	PW	Practice Work
SVL	STATISTO STATISTO STATISTO	Sve	all SVU - all SVU.

ILO Code	NU SVU SVU SVU SVU	Intended Results	Assessment Type					
			ISC	PW	Ex	PF2F	Rpt	
ILOI	The student learns and concludes the role of production and operations in business and in economics in general.	concepts related to			SVU SVU	SVU S SVU S	57Ú 57Ú	
ILO2	The student learns about the problems and issues facing operations managers, and concludes the main strategic options that companies face when choosing and implementing operations.	to recognize the problems of operations and the ability to deal with	22222	57 55 5	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			
ILO3	Students develop terminology, concepts, ideas, and tools to deal with production problems and issues in order to obtain a	production	NU 5	510 510	SVU SVU	57U : 57U	SV SV	





VU SY	competitive advantage through operations.	ability to solve them	SVU	SVI	JSV	USV	JSV
ILO4	The students identify the inefficiency and ineffectiveness in production and operations process, and propose the adequate changes or major redesigns to improve the process.	The ability to use appropriate performance measures					
ILO5	Students analyze processes using appropriate performance measures, such as flow time, productivity, and throughput in different situations in the process.	Ability to suggest changes and redesign to improve the process.	SVU SV	SVU S¥	51	5VU J 5VL U 5VL	5550
ILO6	The course builds a holistic foundation for students to understand decision-making that includes products and services, quality, processes, ability to choose the facility, and supply chain decisions that are essential to the success of the operations of any business organization.	Enables the student to link the concept of quality to production and processes					
ILO7	The student studies and discusses issues inherent in operations management, and understands manufacturing functions in the supply chain.	The ability of the student to distinguish the function of production and processes within the supply chain				U SM VU S VU S SVU S	
ILO8	The course introduces students to a variety of tools and techniques that assist process managers in exploring alternative decision-making methods.	Enables the student to use quantitative techniques to solve production problems	SVU SV	SVU S▼ 1 SV	51		
ILO9	Students understand the specific methods of planning production operations, the importance of process control, planning and inventory management	The student's ability to develop a productive plan and schedule it through a project or job				00 S 51€√S 57€ S	
ILO10	The course provides students with concepts of quality management practice and quality management	Enables the student to apply quality management tools	SVU	SVU	SVU	SVU	SV





VO D	tools in the organization through a	to practical cases of	SV	al	TSV	0.01	VPI
TAZ	wide range of analytical	local and	N2 T	1 2V	- 0	TSV.	- 0
SVY	techniques used in production and	international	1.5	TS I	0 2	TI SV	0 21
SVU	operations management.	companies	TSV	0.0	MIS	NO S	TIS
SVU.	The student applies the inventory	Enables the student	TS	NP	1 - 1 6	SUD.	NU IS
31-	and basic materials management	to employ	NU	CTT S	VU -	TIS	NU -
TSV	methods applied in the processes	inventory	UU:	NU	UVZ	SVU	TIT
a SV	including independent ordering	management	1	SVU	113	\sim	~
0 5.	methods (EOQ), dependent	techniques to serve	SVU	CIT	SVU	TAN	SVU
TIS	ordering methods (MPR), (MRP	production	SVU	SVU	N2	310	ND.
TIS	II), and (ERP);	processes.	SI	SV	AL	ISVL	34-
NU	The student is acquainted with the	Ability to employ	212	TOI	121	AN	121
CVU ?	agile production method, concepts,	JIT and Agile	TSVI	1 31	IT S	0 31	12 13
TI	tools and techniques, including the	Production in a case	~	US	U	5	~
SVU	concepts of JIT in Toyota	study of Syrian	0 21	TIC	JU D	at S	NJ >
UV2	production system.	reality	TIS	NO P	ATS	SNO 3	TT

7- Practice Tools:

Tool Name	Description
AU SVU S	Enterprise Resource Planning (ERP)
ERP	Enterprise Resource Planning (ERP) is made of many business
EKF CU S	management software that share a common database making it easier
ISVU STILLS	to streamline workflows throughout the company.

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