



Kot Bhalwal, Jammu



Model Institute of Engineering  
& Technology (Autonomous)  
Course Handout

## COURSE HANDOUT

OPERATIONS MANAGEMENT (BBAMJ-604)

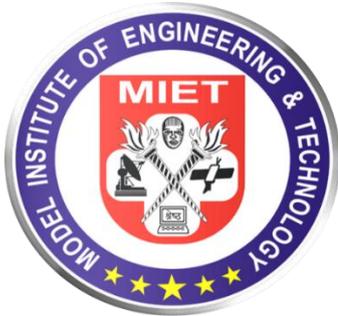
BBA(H)-6<sup>th</sup> SEMESTER

ACADEMIC YEAR (2024-25)

**Dr. Navjeet Kaur**

Assistant Professor

School of Management



School of Management

Model Institute of Engineering & Technology (Autonomous)

Kot Bhalwal, Jammu - 181122

[www.mietjmu.in](http://www.mietjmu.in)



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



Please Do Not Print Unless Necessary



## Detailed Syllabus

S. No.	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Sessional	Final Exam	Total
1	BBAMJ-604	Operations Management	Major	4	4	0	0	40	60	100

### COURSE OUTCOMES:

At the end of the course the student will be able to: -	
CO1	Describe the fundamental concepts of Operations Management.
CO2	Comprehend the role of services in Operations Management.
CO3	Appreciate the factors critical to facility location and layout.
CO4	Analyze various quality control measures.
CO5	Assess the role of digital transformation in optimizing operational processes.

### Detailed Syllabus

#### Section A

#### UNIT I

**Introduction to Production and Operations Management:** Concept and functions of production and operations management. Production and operations management systems. Product Design: elements of product design; Process Design: Concept and Types.

(9 Hours)

#### UNIT II

**Service Operations Management:** Characteristics and Classification of Services. Designing service processes, Service gap model, Service blueprint and service quality. Service capacity and Yield management.

(10 Hours)

#### UNIT III

**Plant Location and Layout:** Plant Location: Concept, Factors influencing plant location; Factor Rating Method, Break-Even Analysis and Centre of gravity method. Plant Layout: Concept, Objectives of a good layout, Types of layouts. Factors affecting plant layout.

(9 Hours)

#### Section B

#### UNIT IV

**Quality Management:** Quality, dimensions of quality. Fundamental Factors Affecting Quality (9 M's), Quality management: concept, process, Total Quality Management, Six Sigma, Quality Standards - ISO 9001:2015, ISO 9004:2018, Implementation of Quality System.

(10 hours)

#### UNIT V

**Emerging Trends in Operations Management:** Global Supply Chain Management, Digital transformation in operations, Industry 4.0 technologies and their impact on operations, Evolution from traditional manufacturing to smart manufacturing, Challenges in adopting Industry 4.0 technologies in operations.

(10 Hours)



### Textbooks

S.No	Name of the Suggested Books	Name of Author	Publisher Name	Edition (Pub. Yr.)
1.	Production & Operations Management	Chary, S.N.	Tata Mc Graw Hill Education Pvt Ltd	6 <sup>th</sup> (2019)
2.	Production and Operations Management	Kanishka Bedi	Oxford Higher Education	3 <sup>rd</sup> (2016)

### Reference Books

S.No	Name of the Suggested Books	Name of Author	Publisher Name	Edition (Pub. Yr.)
3.	Operations Management: Sustainability and Supply Chain Management	H. Heizer	Pearson	12 <sup>th</sup> (2016)

### COURSE PLAN

Unit-I Introduction to Production and Operations Management		
S. No	Topics	Recommended Books
1	Concept and functions of production and operations management	Book 2, Ch 1
2	Production and operations management systems	Book 2, Ch 1
3	Product Design: elements of product design	Book 1, Ch 12
4	Process Design: Concept and Types	<a href="https://www.edureka.co/blog/process-design-in-operations-management/">https://www.edureka.co/blog/process-design-in-operations-management/</a> <a href="https://pressbooks.senecapolytechnic.ca/operationsmanagement/cha/pter/process-design/">https://pressbooks.senecapolytechnic.ca/operationsmanagement/cha/pter/process-design/</a> <a href="https://blog.mindmanager.com/2020053-types-of-process-design/">https://blog.mindmanager.com/2020053-types-of-process-design/</a>
Unit-II Service Operations Management		
5	Characteristics and Classification of Services.	Book 2, Ch 2
6	Designing service processes	Book 2, Ch 2
7	Service gap model	<a href="https://www.mbaknol.com/market-ing-management/the-gap-model-of-service-quality/">https://www.mbaknol.com/market-ing-management/the-gap-model-of-service-quality/</a> <a href="https://forms.app/en/blog/gap-model-of-service">https://forms.app/en/blog/gap-model-of-service</a>
8	Service blueprint and service quality	Book 2, Ch 2
9	Service capacity and Yield management	Book 2, Ch 2
Unit-III Plant Location and Layout		
10	Plant Location: Concept, Factors influencing plant location	Book 2, Ch 4
11	Factor Rating Method, Break-Even Analysis and Centre of gravity method	Book 2, Ch 4
12	Plant Layout: Concept, Objectives of a good layout	Book 1, Ch 28



13	Types of layouts	Book 1, Ch 28
14	Factors affecting plant layout.	Book 1, Ch 28
<b>Unit-IV Quality Management</b>		
15	Quality, dimensions of quality. Fundamental Factors Affecting Quality (9 M's),	Book 1, Ch 9
16	Quality management: concept, process,	Book 1, Ch 10
17	Total Quality Management	Book 1, Ch 11
18	Six Sigma	Book 1, Ch 11
19	Quality Standards - ISO 9001:2015, ISO 9004:2018, Implementation of Quality System.	Book 1, Ch 11
<b>Unit-V Emerging Trends in Operations Management</b>		
20	Global Supply Chain Management	Book 1, Ch 27
21	Digital transformation in operations	<a href="https://www.appsierra.com/blog/digital-transformation-in-operations">https://www.appsierra.com/blog/digital-transformation-in-operations</a> <a href="https://magenest.com/en/digital-transformation-in-operations/?srsltid=AfmBOoopWCVddGO7TFbllZVRol35LbAfdUtu2flsRp3_Frgua7R0H0j">https://magenest.com/en/digital-transformation-in-operations/?srsltid=AfmBOoopWCVddGO7TFbllZVRol35LbAfdUtu2flsRp3_Frgua7R0H0j</a>
22	Industry 4.0 technologies and their impact on operations	<a href="https://dl.acm.org/doi/fullHtml/10.1145/3463858.3463900">https://dl.acm.org/doi/fullHtml/10.1145/3463858.3463900</a> <a href="https://www.brightlysoftware.com/blog/impact-industry-4-point-0-operations">https://www.brightlysoftware.com/blog/impact-industry-4-point-0-operations</a> <a href="https://www.sap.com/india/products/scm/industry-4-0/what-is-industry-4-0.html">https://www.sap.com/india/products/scm/industry-4-0/what-is-industry-4-0.html</a>
23	Evolution from traditional manufacturing to smart manufacturing, Challenges in adopting Industry 4.0 technologies in operations	<a href="https://www.smartfactorymom.com/blog/how-industry-4-0-is-revolutionizing-manufacturing-operations/">https://www.smartfactorymom.com/blog/how-industry-4-0-is-revolutionizing-manufacturing-operations/</a> <a href="https://global.hitachi-solutions.com/blog/industry-4-0-technologies-outcomes-and-the-future-of-manufacturing/">https://global.hitachi-solutions.com/blog/industry-4-0-technologies-outcomes-and-the-future-of-manufacturing/</a> <a href="https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-are-industry-4-0-the-fourth-industrial-revolution-and-4ir">https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-are-industry-4-0-the-fourth-industrial-revolution-and-4ir</a>



Kot Bhalwal, Jammu



# Model Institute of Engineering & Technology (Autonomous) Course Handout

## ADDITIONAL WEB RESOURCES

1.	Course Pack Production Management 2025 created on Harvard Publishing House <a href="https://hbsp.harvard.edu/coursepacks/1262242">https://hbsp.harvard.edu/coursepacks/1262242</a>
2.	Swayam NPTEL course on Operations Management (AICTE-12 weeks) <a href="https://onlinecourses.nptel.ac.in/noc25_me59/preview?user_email=kaur.navjeet73@gmail.com">https://onlinecourses.nptel.ac.in/noc25_me59/preview?user_email=kaur.navjeet73@gmail.com</a>

## GRADING AND ASSESSMENT

- **Sessional Test:** 20 marks
- **Assignment:** 10 marks
- **Attendance:** 10 marks
- **Final Examination:** 60 marks

## COURSE POLICIES

- **Attendance:** Minimum 75% attendance is mandatory to appear in the final examination of the course.
- **Academic Integrity:** MIET's academic integrity policies apply. Plagiarism will not be tolerated.
- **Late Submissions:** Assignments and projects must be submitted by the specified timelines.

## FACULTY INFORMATION

- **Office Hours**  
Monday (12:05 PM – 12:55 PM)  
Friday (12:05 PM – 12:55 PM)
- **Contact Information**  
[navjeet.mba@mietjammu.in](mailto:navjeet.mba@mietjammu.in)

