

**JAIPURIA INSTITUTE OF MANAGEMENT**

**PGDM (SM); TRIMESTER II; ACADEMIC YEAR 2020-21**

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| Course Code and title | OM 202 Operations Management |
| Credits | 3 |
| Term and Year | II Term, 2020-21 |
| Course Pre-requisite(s) | Basics Knowledge of Industries Operations |
| Course Requirement(s) | Knowledge of Basic Mathematics/Statistics  Knowledge of Business Environment |
| Course Schedule (day and time of class) | As per time table |
| Classroom # (Location) | As per time table |
| Course Instructor | Dr. Ankur Chauhan |
| Course Instructor Email | [ankur.chauhan@jaipuria.ac.in](mailto:ankur.chauhan@jaipuria.ac.in) |
| Course Instructor Phone (Office) | 91-8295010391 |
| Student Consultation Hours | As needed. |
| Office location | As needed. |

**1. Course Overview**

In today’s competitive world, excellence in operational practices is a key for success for any business. The purpose of this course is to educate students on various Operations Management (OM) functions in any business organization. These concepts not only will create an awareness about this functional area but will also impart skills in students for optimization of various processes and in developing competitive business practices. This course will also develop skills in students with entrepreneurial orientation. The learnings of this course will help students in making strategic decisions in long run in their careers.

The course starts with an introduction and overview of OM practices in India and its need in our management studies. Second module covers the various concepts relating to the product and process design and the importance of service sector, which is surpassing production sector by growing demand, activities and participation. The module on Demand Forecasting covers the importance of demand in various planning decisions. The module on Facility Location Planning gives emphasis on factors on facility location planning. Facility Capacity & Layout Planning shows how Strategic Capacity Planning is a Key to Competitiveness. It also discusses the models in service facility planning. Inventory Management module puts stress on calculation of marginal ordering and carrying costs of inventory. Module on Quality Management introduces Quality aspects and Quality Control Tools and concept of six sigma. Just-in-time (JIT) and Lean manufacturing have become essential part of the Indian domestic companies. Module on Supply Chain Management and Lean management will develop understanding of supply chain and ways through which it can contribute to competitive advantage.

**2. Programme Outcomes (POs):**

At the end of PGDM (SM) programme graduates will be able to:

PO 1: Communicate effectively

PO 2: Demonstrate the ability to work in teams to achieve desired goals

PO 3: Reflect on business situations applying relevant conceptual frameworks in service management context

PO 4: Evaluate different ethical perspectives

PO 5: Discuss the centrality of customer experience in service management

PO 6: Exhibit innovative and creative thinking

**3. Course Learning Outcomes (CLOs):** At the end of the course, the students should be able to:

CLO 1: Understand the role of Operations Management functions. (Factual)

CLO 2: Apply operations management conceptual frameworks to business situations.

CLO 3: Select operations management tools & techniques to take business decisions.

(Apply/Use - Procedural)

**Mapping of CLOs with POs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 |
| CLO 1 |  |  |  |  |  |  |
| CLO 2 |  |  |  |  | R\* |  |
| CLO 3 |  |  | R\* |  |  |  |

*(\*for course attainment)*

**4. Books and References**

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| **Text Book**  Operations & Supply Management, Chase R., Shankar R. and Jacobs F., TMH, New Delhi, 12th edition.  **References**   * Operations Management by Norman Gaither and Greg Frazier, CENGAGE Learning, Edition 9. * Operations Management along the supply chain by Russell and Taylor, Wiley India Edition, 2012. * Service Operations Management-Improving Service Delivery: Robert Johnston and Graham Clark, Pearson 2e. * Service Operations Management: James Fitzsimmons & Mona Fitzsimmons, TMH   Magazines: Business World, Business India, Economic Times  **On line resources**   * <http://nptel.iitk.ac.in>, * <http://learnerstv.com>   *New edition of the book shall NOT be purchased and existing editions available in Library shall ONLY be used.* |

**5. Session Plan**

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| **Session** | **Topic / Sub Topic** | **Reading Reference** | **Pedagogy** | **Session Learning Outcomes** | **CLO** |
| **Module 1: *Introduction & Overview*** | | | | | | |
| 1 | Introduction  (Course overview, Need of the course, Expectations, Evaluation), | Chapter 1, Page 3 - 22 | Discussions | At the end of the session, the student will be able to identify the relevance of Operations Management in Business decisions. | CLO1 |
| 2 | Transformation Process | Chapter 2, Page 28 - 52 | Discussions | At the end of the session, the student will be able to explain transformation processes and Operations Strategy for Business Excellence. | CLO 1 |
| 3 | Operation Strategy | Chapter 2, Page 28 - 52 | Discussions | At the end of the session, the student will be able to explain transformation processes and Operations Strategy for Business Excellence. | CLO 1 |
| ***Module 2: Product and Service Operations Management*** | | | | | | |
| 4 | Product Design Process, Economic Analysis of Product Development Process | Chapter 3, Page 53 – 88. | Discussions | At the end of the session, the student will be able to explain concepts and process of new product design and economic analysis. | CLO 2 |
| 5 | Service Characteristics, Service Classification, Service Capacity, Service Processes, Service Blueprinting | Chapter 9, Page 248 - 270 | Discussions | At the end of the session, student will be able to explain nuances of services, characteristics of services, blueprinting of services and capacity management in service sector. | CLO 2 |
| 6 | Process Analysis  ***Case: - Kristen’s Cookie Company (A)***  *(Operations Management by Chase, Shankar, Jacobs, Aquilano, Edition 12, pp 219).*  *Or*  ***Case: - Pizza USA: An Exercise in Translating Customer Requirements into Process Design Requirements*.**  *(Operations and Supply Chain Management by Chase, Shankar and Jacobs. Edition 14e, pp. 268).* | Chapter 9, Page 248 – 270  Chapter 11  Page 319 - 360 | Discussions  Case Study | At the end of the session, the student will be able to explain importance of process analysis in operations management and will be able to apply these concepts in real life situation. | CLO 2 |
| ***Module 3: Demand Forecasting and Capacity Planning*** | | | | | | |
| 7 | Demand Forecasting | Chapter 18, page 544 – 596 | Discussions  Exercise | At the end of the session the student will be able to explain importance of demand forecasting in business decisions. | CLO 2 |
| 8 | Demand Forecasting | Chapter 18, page 544 – 596 | Discussions  Exercise | At the end of the session the student will be able to explain importance of demand forecasting in business decisions. | CLO 2 |
| 9 | Capacity Planning | Chapter 5 and Chapter 5A, page 137 – 186. |  | At the end of the session the student will be able to do capacity planning and learning curve concepts in business situations. | CLO 2 |
| 10 | Guest Session |  |  |  |  |
| ***Module 4: Facility Location and Layout Planning*** | | | | | | |
| 11 | Facility Location Planning, Factor & Location Ratings along with numerical for Centroid Method and factor rating method. | Chapter15, page 460 – 486. | Discussions  Exercise | At the end of the session the student will explain importance of location decisions and will be able to apply concepts in business situations. | CLO 3 |
| 12 | Product Layout – Production Line Balancing. | Chapter 8, page 208- 247. | Discussions  Exercise | At the end of the session the student will explain importance of layout decisions and will be able to apply concepts in business situations in manufacturing organizations. | CLO 3 |
| 13 | Service Layout: Process Layouts  ***Case: - Soteriou’s Souvlaki***  *(Operations Management by Chase, Shankar, Jacobs, Aquilano, Edition 12, pp. 295)* | Chapter 8, page 208- 247. | Discussions  Case Study | At the end student will be able to apply layout concepts in business situations in service organizations. | CLO 2, 3 |
| 14 | Operations scheduling in Manufacturing and Service Industry. | Chapter 22, Page 716 - 755 | Discussions  Exercise | At the end of the session the student will explain the importance of scheduling in operations management. | CLO 2 |
| 15 | Guest Session |  |  |  |  |
| ***Module 5: Inventory Management*** | | | | | | |
| 16 | Introduction to Inventory management, Types of inventory, Selective Inventory Control: ABC, VED, FSN Analysis. | Chapter 20, page 628 – 678. | Discussions | At the end of the session the student will explain importance of inventory management in business operations. | CLO 1 |
| 17 | Q and P Models  Economic Order Quantity model with safety stock calculations. | Chapter 20, page 628 – 678. | Discussions  Exercise | At the end of the session the student will explain importance of inventory management in business operations. | CLO 2 |
| 18 | Inventory Management Practices  ***Case: - Green Garden Products***  *(Operations Management by Norman Gaither and Greg Frazier, pp 578)* | Chapter 20, page 628 – 678. | Discussions  Case Study | At the end of the session the student will be able to calculate inventory levels and will be able to take inventory decisions in business situations. | CLO 2 |
| 19 | Guest Session |  |  |  |  |
| ***Module 6: Quality Management*** | | | | | | |
| 20 | Various Dimensions of Quality and Costs in manufacturing and service industries | Chapter 12, 13 page 361 –422. | Discussions  Exercise | At the end of the session the student will be able to explain importance of quality management in business. | CLO 2 |
| 21 | Quality improvement techniques, Kaizen, Six sigma, 5 “S”, QC Circles, Seven QC tools etc. | Chapter 12, 13 page 361 –422. |  |  | CLO 2 |
| ***Module 7: Supply Chain and Lean Management*** | | | | | | |
| 22 | Supply Chain Management  *Case:*  ***E-Choupal: Transforming the Rural India.***  *Operations and Supply Chain Management by Chase, Shankar and Jacobs. Edition 14e, pp. 492* | Chapter 14, page 424 – 456. | Discussions | At the end of the session the student will be able to explain importance of Supply Chain Management in business. | CLO 2 |
| 23 | Lean Processes (JIT)  Contemporary Issues in Operations Management | Chapter 14, page 424 – 456. | Discussions | At the end of the session the student will be able to explain importance of SCM in business management. | CLO 1 |
| 24 | Recapitulation |  |  |  |  |

***Note :-*** *Three additional sessions in Communication Club activity in each section for presentations*

*Minimum TWO flip videos and TWO online sessions to be planned in the course*

**6. Assessment Tasks**

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| **Assessment Component** | **Description** | **Weight** | **CLOs** |
| Quizzes | There will be Two Quizzes. | 10 + 10 Marks | --- |
| Case Studies | Students will be required to submit 4 -5 short cases. Individual analysis of case to be done by each student.  Four case studies shall be evaluated.  CLO 1 will be measured through One case study.  CLO 2 (PLO3) will be measured through Three case studies. | 20 Marks | CLO 1  CLO 2  PLO 3 |
| Group Project Presentation | It will be on topics like Process analysis, Location decision, Layout designing, Manpower scheduling, TQM, Supply Chain Management etc. A live project is suggested for students.  Every group will deliver presentation for evaluation.  Individual student’s presentation shall be evaluated.  CLO 3 shall be measured through presentation  PLO 6 shall be measured through Project report/PPT | 20 Marks | CLO 3  PLO 3  PLO 6  (Introductory) |
| End Term Examination  50 % CLO 2  50 % CLO 3 | It will be based on the total course. This will consist of case study, application-based situation questions along with conceptual review. | 40 Marks | CLO 2,  CLO 3  PLO 3 |

*Note: -**Individual instructors delivering this course are free to select any relevant case studies also other than mentioned in the course outline above.*

**7. Rubrics for Assessment Tasks (Quizzes, Case studies, Project Presentation, End-term exam)**

***Rubrics for Quiz (20%) For Grading Purpose only,* NOT for AACSB**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria / Traits** | **Below Expectations**  **Below 35 % marks** | **Meets Expectations**  **35 – below 70 % marks** | **Exceeds Expectation**  **70 % and above marks** |
| Clarity of Concepts and ability to apply them | Less than 35% answers are correct. Most of the concepts are not clear and student is unable to understand the same. | Between 35 – below 70% answers are correct. Many of the concepts are clear and understood by student. | 70% and above answers are correct. Most of concepts are clear and understood by the student. |

***Rubrics for case studies (20 %)* For *Grading and* AACSB Purpose (20 %)**

**PLO3: Apply relevant conceptual frameworks to business situations:** Be able to identify and apply knowledge of disciplinary or interdisciplinary theory and frameworks to business situations.

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| **PLO3: Apply relevant conceptual frameworks to business situations**. | |
| **Competencies** | **Traits/Performance Indicators (PI)** |
| Apply knowledge of disciplinary or interdisciplinary theory and frameworks to business situations. | * 1. Gather relevant information about business situations.   2. Select and use relevant concepts and frameworks to business situations. |

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| **Traits** | **Below Expectations** | **Meets Expectations** | **Exceeds Expectation** |
| **Gather and analyze Relevant Information**  *50 % weightage* | Struggles to pinpoint the information needed. Gathers information from one source. Minimal evidence of search/selection criteria. | Clearly identifies the information required. Gathers information from multiple valid and reliable sources. Evidence of search/selection criteria. | Demonstrates a sophisticated understanding of what information is needed.  Gathers extensive information from a variety of valid and reliable sources including journals, texts, etc., specific to the subject. Clear evidence of  search/selection criteria. |
| **Select and Use Relevant Concepts and Frameworks**  *50 % weightage* | Has limited knowledge on selecting and using relevant concepts and frameworks. Requires extensive assistance in selecting relevant concepts and  frameworks. | Selects and uses relevant concepts and frameworks. Requires minimal assistance in choosing relevant concepts and frameworks. | Selects and uses relevant concepts and frameworks. Needs no assistance in selecting relevant concepts and frameworks. |

***Rubrics for Project / Presentation (20%)* For *Grading and* AACSB Purpose (20 %)**

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| --- | --- | --- | --- |
| **Task / traits**  **(Wt)** | **Below Expectations Below 35 % marks** | **Meets Expectations**  **35 – below 70 % marks** | **Exceeds Expectation**  **70 % and above marks** |
| Quality of presentation | Most group members could not convey clearly what they had to share  Did not demonstrate coordination  The group was not able to clearly defend the presentation. | Group members conveyed but not in proper manner  The group explained the components of presentation to a limited extent;  members appeared disjointed and clear reasoning missing | Group members conveyed clearly  The arguments were well developed  The group was able to clearly defend all the components and the justifications offered were satisfactory. |

**PLO 6: Exhibit creative thinking:** Be able to generate new and imaginative ideas, make connections between seeming unrelated phenomena and use unorthodox methods to generate a solution.

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| **PLO 6: Exhibit creative thinking** | |
| **Competencies** | **Traits/Performance Indicators (PI)** |
| Be able to generate new and imaginative ideas, make connections between seeming unrelated phenomena and use unorthodox methods to generate a solution. | 6.1 Generates new and imaginative ideas in project  6.2 Make connections between seemingly unrelated phenomena of operations Management and other disciplines  6.3 Does not hesitate to use unorthodox methods to generate a solution |

**Rubrics**

|  |  |  |  |
| --- | --- | --- | --- |
| **Traits** | **Below Expectations** | **Meets Expectations** | **Exceeds Expectation** |
| **Generate new and imaginative ideas** | Rarely generates new and imaginative ideas. Reproduces existing ideas. | Generates many new and unique ideas | Consistently generates new and imaginative ideas |
| **Connect seemingly unrelated phenomena** | Unable to connect disparate ideas. Cannot make connections between previously unrelated ideas. | Searches for new and effective methods, makes connections between previously unrelated ideas. | Pursues new methods and solutions, thinks outside the box and connects disparate ideas. |
| **Use unorthodox methods to generate solutions** | Tries old and tested solutions to problems. Sticks to conventional methods. | Attempts to try unorthodox and unconventional methods to generate solutions, but prefers to stick to conventional methods. | Does not hesitate to go beyond traditional boundaries. Prefers to use an unorthodox method, if one exists. |

***Rubrics for End Term Exam. (40%) For Grading and AACSB purpose only***

CLO 2 = 50 % weightage, CLO 3 = 50 % weightage

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| **Criteria / Traits**  **(Wt)** | **Below Expectations**  **Below 35 % marks** | **Meets Expectations**  **35 – below 70 % marks** | **Exceeds Expectation**  **70 % and above marks** |
| Clarity of concepts and ability to apply them | Only up to 35% answers are correct. Most of the concepts are not clear and student is unable to understand the same. | Between 35 – 70% answers are correct. Many of the concepts are clear and understood by student and able to solve the problems given | 70% or more answers are correct. Most of concepts are clear and understood by the student and also was able to indicate the additional information required for better decision making |

**Mapping PLOs with CLOs: -**

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| --- | --- | --- | --- |
|  | **CLO 1**  Understand the role of Operations Management functions. (Factual) | **CLO 2**  Apply operations management conceptual frameworks to business situations. | **CLO 3**  Select operations management tools & techniques to take business decisions.  (Apply/Use - Procedural) |
| **PLO1:**  Communicate Effectively. |  |  |  |
| **PLO2:**  Demonstrate the Ability to Work in Teams to Achieve Desired Goals. |  |  |  |
| **PLO3:**  Apply relevant conceptual frameworks to business situations | **I** | **R** | **M** |
| **PLO4:**  Identify ethical business practices |  |  |  |
| **PLO5:**  Comprehend sustainability issues |  |  |  |
| **PLO 6:**  Exhibit creative thinking |  |  | **I** |

**9. Time Budgeting in Course Planning:**

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| --- | --- | --- |
| **Activity** | **Description** | **Time Budgeted** |
| Classes | 2-3 hours per week for 12 weeks | 30 hours |
| Reading | Prescribed readings and making notes | 20 hours |
| Preparation of set questions, exercises and problems | Including shared and group exercises | 20 hours |
| Preparation of assignment | Reading and writing | 20 hours |
| Study and revision for test and end of Trimester examination | Self-preparations | 15 hours |
| **TOTAL** |  | 105 hours |

**Instructions:**

Students will be expected to maintain a daily log of their learning and make an action plan. The continuous evaluation tools would be implemented as per schedule and collected for evaluation. Students are encouraged to visit videos available on Impartus, you tube on TED talks, and readings available at websites like course era, etc.

**10.** **Academic Conduct**

**Institute’s Policy Statements**

It is the responsibility of every student to be aware of the requirements for this course, and understand the specific details included in this document. It is emphasized that this course requires a significant commitment outside of formal class contact.  The learning tasks in this course may include classes (lectures or seminars), required reading, preparation of answers to set questions, exercises and problems, and self-study. In addition, students may be required to complete an assignment, test or examination.

**LMS-Moodle/Impartus**

LMS-Moodle/Impartus is used to host course resources for all courses. Students can download lectures, additional reading materials, and tutorial notes to support class participation.

**Late Submission**

Assessment tasks submitted after the due date, without prior approval/arrangement, will be not be accepted. Requests for extension of time must be made with the faculty member concerned and based on Special Consideration guidelines.

**Plagiarism**:

Plagiarism is looked at as the presentation of the expressed thought or work of another person as though it is one's own without properly acknowledging that person.  Cases of plagiarism will be dealt with according to Plagiarism Policy of the institute. It is advisable that students should read the Student Handbook for detailed guidelines. It is also advisable that students must not allow other students to copy their work and must take care to safeguard against this happening. In cases of copying, normally all students involved will be penalized equally; an exception will be if the students can demonstrate that the work is their own and they took reasonable care to safeguard against copying.