

MBA661A: Production and Operations Management 3-0-0-1-10

Course Objectives

MBA661 introduces the concepts and theories of operations management, with an emphasis on production of goods. Applications of the concepts are illustrated through real-life cases. It is expected to equip students with relevant insights and analytical skills.

Prerequisites

Quantitative methods (MBA651)

Course Contents

Overview of production systems.

Design: Product design; Process selection; Capacity planning; Facilities layout and location.

Planning: Forecasting; Aggregate planning; MRP and JIT; Inventory control; Scheduling.

Analysis & control: Productivity; Process analysis; Quality control and assurance.

Integration: Supply chain management.

Special products: Service and Project.

Special Emphasis

- Illustration of concepts through cases
- Real-life application through project

Class Schedule

Time: 2:00 pm to 3:15 pm, Tuesday and Thursday

Class room: C2, IME Building

Instructor

Dr. Avijit Khanra (Phone: 6180, Email: kavijit)

Office hour: Immediately after the classes

Evaluation

1) End-sem exam	35%
2) Mid-sem exam	25%
3) Quizzes*	15%
4) Project**	15%
5) Class participation***	10%

Total	100%

* There will be four in-class quizzes, two before the mid-semester examination and two after it. A quiz date will be announced in the previous class. Marks of the best three quizzes will be considered for grading. **There will be no make-up for a missed quiz.**

** In the project, operations of an organization (outside IIT Kanpur) are to be studied, and compared with the concepts and theories covered in the course. Alternately, one can (attempt to) solve an operational problem faced by an organization. It is to be done in groups of four/five. The organization must be identified before the mid-sem exam, and the final submission, which includes a presentation and a report, is due on the last class.

*** Evaluation of class participation is subjective. It will be measured primarily by student's preparedness and inquisitiveness during the classes. In the absence of relevant data, which can happen for some students, cues will be taken from the other components.

Home assignments: At the end of most classes, to supplement the class discussions, a home assignment will be given. The solution will be discussed in the next class.

Grading Policy

A mix of absolute and relative grading policies will be adopted. First, a pass mark will be decided; students failing to secure the pass mark will get F grade. Then the interval between the pass mark and the maximum score will be split into four (or five) intervals corresponding to A, B, C, D (and E) grades. **MBA and non-MBA students will be graded separately.**

Attendance Policy

It goes without saying that 100% attendance is compulsory. Any student who is granted leave shall inform the instructor regarding his/her absence.

Books & References

This being a PG course, there is no prescribed textbook. However, the following books are recommended as references, with the first two likely to be the most useful.

1. Steven Nahmias, Production and Operations Analysis, McGraw-Hill.
2. Klassen and Menor, Cases in Operations Management, Sage.
3. Russell and Taylor, Operations Management, Wiley.
4. Heizer and Render, Operations Management, Pearson.
5. William Stevenson, Operations Management, McGraw-Hill.
6. Cachon and Terwiesch, Matching Supply with Demand, McGraw-Hill.