

Boston University, College of Engineering
ENG ME 584: Manufacturing Strategy

Course Information: Spring 2021

Meeting Details:

Monday and Wednesday 4:30 pm - 6:15 pm
PHO 211, 8 St. Mary's Street and on Zoom

Instructor:

Professor Perkins
Office: 15 St. Mary's Street, Room 146
Phone: (617) 353-4991
Email: perkins@bu.edu

Course Website:

Blackboard Learn

Office Hours on Zoom:

Email me to arrange

Course Readings:

Textbook: F. Robert Jacobs and Richard Chase, **Operations and Supply Chain Management**, (16th ed.), McGraw-Hill, 2021

Online Readings: Harvard Business School and assorted other articles

Homework:

Homework will be 30% of course grade.

Exams/Projects:

Midterm worth 20% of course grade.
Semester project and presentation worth 30% of course grade.

Attendance and Participation:

Attendance/Participation in class will be 20% of course grade.

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- **Prerequisite: EK 409 (Engineering Economy)** Topics: decision making among alternatives; break-even and minimum cost analysis/cost optimization; benefit and cost analysis; inventories (including Little's Law, economic order quantity (EOQ), utilization,, etc.)

Course Syllabus: Spring 2021

- **Manufacturing Strategy Tools**

- Process Analysis and Metrics
- Manufacturing Finance and Control
- Business and Operations Strategy
- DfX (Design for X) and Learning Curves

- **Plant Strategy**

- Plant Location
- Types of Processes / Facility Layout
- Forecasting and Operations Planning
- Capacity Management
- Inventory Management
- Six Sigma Quality
- Motivating a Workforce

- **Supply Chain Strategy**

- Introduction to Supply Chains
- Lean Production and Lean Supply Chains
- Logistics
- Global Sourcing and Procurement
- ERP and MRP
- Reverse Logistics