

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

Course Information: Spring 2025

Prerequisite: ME 420 (Supply Chain Engineering) or ME 510 (Production Systems Analysis)

Meeting Details:

Monday and Wednesday 4:30 pm - 6:15 pm
EPC 204

Instructor:

Professor Perkins
Office: 15 St. Mary's Street, Room 138
Phone: (617) 353-4991
Email: perkins@bu.edu

Course Website:

Blackboard Learn

Office Hours:

Monday 1:00 pm - 2:00 pm (email me to confirm) and by appointment.

Course Readings:

Textbook: F. Robert Jacobs and Richard Chase, **Operations and Supply Chain Management**, (17th ed.), McGraw-Hill, 2024

Case Studies: Harvard Business School and assorted other articles

Homework:

Homework will be 25% of course grade.

Exams/Projects:

Midterm worth 25% 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.

AI Policy:

All responses on homework assignments must be your own. You may use AI to **summarize** reading assignments and answer non-assignment-related questions in preparation for lecture discussion.

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Course Syllabus: Spring 2025

- **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