

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

**Course Information: Spring 2022**

**Meeting Details:**

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

**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:**

Monday/Wednesday 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**, (16<sup>th</sup> ed.), McGraw-Hill, 2021

**Case Studies:** 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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**ENG ME 584: Manufacturing Strategy**

- **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 2022**

- **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