Meeting Details:
   Monday and Wednesday 6:30 pm - 8:15 pm
   PHO 210, 8 St. Mary’s Street and remote sites

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:
   Wednesday 3:00 pm - 4:00 pm (email me to confirm) and by appointment

Textbook:
   Nahmias and Olsen, Production and Operations Analytics (8th ed.), Waveland Press, 2021

Problem Sets:
   Problem sets will be 40% of course grade. Assigned approximately weekly.

Exams:
   Midterm worth 25% of course grade. Midterm date to be determined.
   Final worth 25% of course grade. Final date to be determined.

Attendance and Participation:
   Attendance/Participation in class will be 10% of course grade.
Boston University, College of Engineering  
ENG ME 510: Production Systems Analysis  

Course Topics: Fall 2022

- Deterministic and stochastic inventory models: Economic Order Quantity (EOQ), Economic Lot-Sizing Problem (ELSP), Dynamic lot-size models, (s,Q), (s,S), and other stochastic models
- Demand forecasting: average, moving average, exponential smoothing, other methods
- Aggregate Production Planning (PP) and Master Production Scheduling (MPS): linear programming models
- Material Requirements Planning (MRP) and production control methods: MRP and MRP-II, Kanban, and Just-in-Time (JIT)
- Supply chain management: Enterprise Resource Planning (ERP), inventory balancing
- Analysis of throughput, production lead time, and Work-in-Process (WIP): Kingman’s equation, CONWIP, mean value analysis
- Scheduling: classical/static scheduling theory (single and multiple machines, flow shops, and job shops); neoclassical scheduling theory (scheduling of human resources); project scheduling (PERT/CPM)

Reference Texts: