

OM476: Operations Planning & Scheduling:  
Course Information

**OM 476: Operations Planning and Scheduling  
- Basic Information**

- **M, W Class:** 8:00 - 9:45 a.m., Lindner 107
  - **Prerequisite:** OM 380 – Operations Management
- **Instructor:** Uday S. Rao, <http://business.uc.edu/Uday-Rao>
  - **Contact Info.:** [uday.rao@uc.edu](mailto:uday.rao@uc.edu), 556-7138, 556-5499 (fax)
- **Office:** 528 Lindner Hall
  - **Office Hours:** \_\_TBA (MW noon-1:30 p.m.?)\_\_, or by appointment
- **Web Site:** Blackboard: <http://blackboard.uc.edu>
- Please fill a ***student information survey*** sheet circulated in class (same as version on blackboard, Course Documents → Introduction)
- **Professional Societies** – <http://www.business.uc.edu/departments/qaom/societies>  
For OM476, **APICS:** American Production and Inventory Control Society membership is recommended (offers scholarships, plant tours, etc.)
  - <http://www.apics.org> or <http://www.apics-cincy.org> or APICS UC Chapter on blackboard); contact Prof. Ruth Seiple ([ruth.seiple@uc.edu](mailto:ruth.seiple@uc.edu)) for information

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(NP here means see Notes Page for this slide) **NP**

**OM 476 OPS - Miscellaneous Course Information**

**Required Text:** *Factory Physics: The Foundations of Manufacturing Management*, W.J. Hopp & M.L. Spearman, 3<sup>rd</sup> Edn., 2008.

- Two copies each of the second and third editions are on reserve at Langsam library FYR. E-book and Hardcopy versions are available at the UC Bookstore.

**Evaluation:** Course Grades will be based on **four assignments** (24%), a **midterm** exam (25%), a **final** exam (25%), a team-based course **project** (20%), and class **participation** (6%).

- *Course grades depend on your overall score compared to the class average and not on absolute score.* FYR, you will be assigned a mid-quarter course grade after the midterm.
- All homework assignments must be original work submitted on time by the due-date. Work early on the assignments, feel free to discuss the concepts with me or your friends, but submissions must be your own work (not copied) for the OM 476 class. [Refer to UC student code of conduct [http://www.uc.edu/conduct/Code\\_of\\_Conduct.html](http://www.uc.edu/conduct/Code_of_Conduct.html)]
- If you have any **special needs** related to your participation in this course, you should meet with the instructor to arrange for reasonable provisions to ensure an equitable opportunity to meet all the requirements of this challenging course.

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**OM 476 - Course Description**  
**– Operations Planning & Scheduling for Improvement**

- We cover *fundamental concepts and techniques* of operations management, including MRP/ERP, JIT, and a *system of laws* collectively known as “**Factory Physics**” ([www.factoryphysics.com](http://www.factoryphysics.com)).
  - E.g. System performance typically degrades with increasing variability.
  - Responsibility without commensurate authority & training is demoralizing / counterproductive.
- These concepts provide a *framework for evaluating classical operations management techniques* as well as evolving new strategies.
- Factory Physics *laws* relate various *measures of operations performance*, such as throughput (TH), cycle time (CT), work-in-process (WIP) inventory, customer service, variability, and quality, in a consistent manner.
  - E.g.,  $WIP = TH \times CT$
- Opportunities for learning include lectures, readings, exercises, case studies, and a project; **active class participation is essential.**

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**Tentative Course Schedule**

	Week, dates	Topic:	Reading	Non-class Work
0: Intro	1: 9/23, 9/28	History, Intro., Innovations, PQ Problem, Human Element	Ch 0,1, 11; PQ Debrief	Ch 1 (History) – Self study
1: Inventory	2: 9/30, 10/5	Inventory Models: EOQ & EOI, Wagner-Whitin Dynamic Lot-sizing	Ch 2 – 2.2, 2.3	<u>Project Concept</u> (Due M 10/5)
	3: 10/7, 10/12	Statistical Inv. Models: Newsboy, Control Policies (e.g., Base-stock)	Ch 2 – 2.4.1, 2.4.2	<u>Assignment 1</u> (Due W 10/7)
	4: 10/14, 10/19	<i>Sport Obermeyer case</i> , Distribution Game, Material Requirements Plan	Obermeyer Case, Ch 3	<u>Assignment 2</u> (Due W 10/14)
2: MRP/JIT	5: 10/21, 10/26	Enterprise Resource Planning (ERP), <u>Midquarter exam (10/26)</u>	Ch 3, SAP Intro	Exam Review (Session TBA)
	6: 10/28, 11/2	JIT/Lean/Toyota Production System, Intro to Factory Dynamics	Ch 4, 5, Ch 7	Ch 5 – Self study, Finalize Project
3: Queuing	7: 11/4, 11/9	Factory Dynamics (WIP, TH, CT; Best/Worst/Avg. Case Performance)	Ch 7	Toyota tour? <u>Assignment 3</u> (11/9)
	8: 11/16, 11/18	Variability Basics & Effects	Ch 8	<u>Draft Project PPT</u>
	9: 11/23, 11/25	Variability, Project Presentations	Ch 8	<u>Assignment 4</u> (11/25)
	10: 11/30, 12/2	Project Presentations, Exam Review	--	Project PPT

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