

REMINDER: Syllabi are to be used to evaluate general content, are not binding and may/may not include updates for the upcoming semester

## IE 8333 - PRODUCTION CONTROL SYSTEMS II

**Catalog Description:** Inventory systems, static and dynamic production planning, operations scheduling and forecasting systems.

**Instructor:** Dr. John M. Usher, P.E., 260 McCain, 325-7624. (usher@ise.msstate.edu)

**Office Hours:** Mon. & Wed. from 1:30-2:30 p.m.; other times by appointment

**Class web site:** <https://mycourses.msstate.edu>

**Textbook:** Hopp, W.J., and M.L. Spearman, Factory Physics, 3<sup>rd</sup> edition, Waveland Press, 2008. (It is **the green book** not the brown one from McGraw-Hill)

**Software:** Student editions of Flexsim (or some other simulation software system that you are familiar with) will be needed for the project.

**Prerequisite:** IE 4333 - Production Control I (or equivalent course)

### Tentative Course Outline:

Topic	Chapter
<b>Review</b>	
Introduction	0
Inventory Control	2
MRP Crusade	3
The JIT Revolution	4
What Went Wrong	5
<b>Factory Physics</b>	
A Science of Manufacturing	6
Basic Factory Dynamics	7
Variability Basics	8
Corrupting Influence of Variability	9
Push and Pull Production	10
Human Element in Operations Management	11
<b>Principles in Practice</b> (We will select some chapters from the list below)	
A Pull Planning Framework	13
Shop Floor Control	14
Production Scheduling	15
Aggregate and Workforce Planning	16
Supply Chain Management	17
Capacity Management	18

### Grading:

Exam 1	25%
Exam 2	25%
Exam 3	25%
Project	15%
Participation & Homework	10%

**Semester Projects:** Your semester projects will be due the last week of classes on Monday, April 22 or Wednesday, April 24. More details on the projects will follow.