

## **MGMT 36100: Operations Management (Fall 2016)**

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 Class Time: Section 38510: TR 7.30-8.45AM KRAN G020

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### **Prerequisites**

- Undergraduate level STAT 225, STAT 311, STAT 416, or STAT 516 with minimum Grade of C-.

### **Course objectives**

- To provide a working knowledge of the vocabulary of OM and to familiarize students with key issues (cost, quality, delivery, and flexibility) and problems (e.g., variability, uncertainty) facing an operations manager.
- To help students develop an ability to design, improve, and manage processes by answering the questions: What are the components of a process? How should various process parameters such as capacities, output, and work-in-process inventories be calculated? What are the major opportunities for improving a process?
- To discuss operations management systems (planning, materials, quality, etc.), and to study a wide variety of topics: inventory models; quality control; six sigma, and supply chain management.
- To give students a perspective on the operations manager’s role in the overall strategy of the firm.

### **Textbook**

- “Matching Supply with Demand: An Introduction to Operations Management”, 3rd Edition.  
 Author(s): Cachon, Gerard; Terwiesch, Christian.

### **Course Materials**

- Announcements, updated schedules, and class slides will be posted on Blackboard.
- Students are responsible to get information from Blackboard in a timely manner (daily).

### **Attendance and class participation**

- Students are expected to attend classes and participate in the class discussions.
- Class seats will be randomly assigned three times throughout a semester. Exams seats will be randomly assigned before each exam.
- Students anticipating an excused absence due to illness must provide a physician's certification of illness and notify the instructor by emails in advance.
- **There are no make-up exams.** For students that miss an assignment or exam due to an excused absence the grade for missed assignment or exam will be the weighted average of all other assignments or exams. **No make-up assignments or exams will be given for unexcused absences.**

### **Assessments**

Exams 1 and 2	35%	Each exam is non-comprehensive and carries 17.5% weight.
Exam 3 (Final Exam)	25%	Final exam is comprehensive
HWs, Experiments, Quizzes	40%	About 10 HWs and 10 Quizzes will be given

- **Grades:** Typical but not guaranteed grade cut-offs are A: 100-90; B: 89-80; C: 79-70; D: 69-60. In the grade distribution, “A” includes “A+” and “A-”, “B” includes “B+” and “B-” and so on.
- **Curve:** At least 20% of students in each section will receive “A” grade (typical range 20% to 25%). At least 60% of students in each section will receive “A” or “B” grade (typical range 60% to 70%). Remaining students can expect grades of “C” and below.
- **Exams:** All exams are closed book, closed note, unless otherwise specified. The exams will cover materials in corresponding lectures, including class notes, homework, read assignments, videos, cases, games, etc.
- **Rescheduling:** Students who reschedule an exam due to any unavoidable conflict **must contact the instructor in person and in an email at least 7 days before the exam**, and, for the final exam, at least 7 days before the finals week.
- **Late Submissions:** Late submission of homework or quizzes will not be accepted.
- **Individual Work:** Class exercises and quizzes are performed individually.

### Launching Business Leaders (LBL)

In keeping with Krannert’s unique LBL initiative, this course will allow each of you to hone additional skills, strengthen your brand, and improve your relationship with others.

- Lecture and discussion will focus on strategic thinking for quality decision making in process analysis and process selection.
- Written communication will be improved through homework assignments.
- Class participation, game involvement, and presentations will improve your adaptability, team building, oral communication, and professionalism skills.
- Additional information concerning LBL can be found at:  
<http://www.krannert.purdue.edu/launching-business-leaders/>



### Purdue University Code of Honor

The purpose of the Purdue University academic community is to search for truth and to endeavor to communicate with each other. Self-discipline and a sense of social obligation within each individual are necessary for the fulfillment of these goals. It is the responsibility of all Purdue students to live by this code, not out of fear of the consequences of its violation, but out of personal self-respect. As human beings we are obliged to conduct ourselves with high integrity. As members of the civil community we have to conduct ourselves as responsible citizens in accordance with the rules and regulations governing all residents of the state of Indiana and of the local community. As members of the Purdue University community, we have the responsibility to observe all University regulations.

To foster a climate of trust and high standards of academic achievement, Purdue University is committed to cultivating academic integrity and expects students to exhibit the highest standards of honor in their scholastic endeavors. Academic integrity is essential to the success of Purdue University’s mission. As members of the academic community, our foremost interest is toward achieving noble educational goals and our foremost responsibility is to ensure that academic honesty prevails.

### Academic Integrity:

All students must carefully read the online guide on “Academic Integrity: A Guide for Students” at <https://www.purdue.edu/odos/welcome/academic-integrity/>, and bring a signed copy to class by the third class. In terms of punishment - if you are caught cheating, or knowingly helping someone else to

cheat, you will receive zero on that particular assignment. **If you are caught cheating more than once you will fail the course.**

### **Adverse Weather Conditions**

The University takes into consideration local and regional weather conditions, travel conditions and decisions by local school districts when deciding whether to delay, dismiss or cancel classes and/or routine operations for an entire campus due to Adverse Weather Conditions. When conditions warrant, a decision to delay, dismiss, or cancel classes and/or routine operations is coordinated with appropriate local city, county or state officials and communicated to faculty, staff and students of the affected campus. The decision to delay, dismiss or cancel classes and/or routine operations for the West Lafayette campus is made by the President and for each of the Regional Campuses it is made by the Chancellor. The President and the Chancellors will each assign a designee for such purposes to act in his or her absence.

### **Adaptive Programs Statement:**

Students with disabilities must be registered with Adaptive Programs in the Office of the Dean of Students before classroom accommodations can be provided. If a student is eligible for academic accommodations because the student has a documented disability that will impact the student's work in this class, please schedule an appointment with the instructor to discuss the needs.

### **Emergency Statement:**

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances.

### **Class Attendance Statement:**

Purdue University policy states that all students are expected to be present for every meeting of classes in which they are enrolled. All matters relative to attendance, including the make-up of missed work, are to be arranged between the student and the instructor. Only the instructor can excuse a student from classes or course responsibilities. In the case of an illness, accident, or an emergency, the student should make direct contact with the instructor as soon as possible, preferably before the class. If a student will be absent for more than five days, the student or his/her representative should notify the Office of the Dean of Students (765-494-1254) as soon as possible. Be advised, the student may be asked to provide documentation from an authorized professional or agency which supports an explanation for the absence.

## Tentative Schedule

Note: HW – Homework; AIC – Academic Integrity Certification

Date	Lecture #	Class Contents	Read	Due
8/23/2015	1	Introduction	1	
8/25/2015	2	Process View of Organization	2	AIC
8/30/2015	3	Little's Law		
9/1/2015	4	Process Flow Diagram, Gantt Chart	3	
9/6/2015	5	Process Capacity and Utilization	3	HW1
9/8/2015	6	Reducing Labor Cost; Line Balancing	4	
9/13/2015	7	Minimizing Idle Time	5	HW2
9/15/2015	8	Project Completion Time; Batching		
9/20/2015	9	EOQ Model	7	HW3
9/22/2015	10	Dealing with Uncertainty; Reworks		
9/27/2015	11	Review		HW4
<b>9/27/2015</b>		<b>EVENING Midterm 1</b>		
9/29/2015	12	Waiting Time	8	
10/4/2015	13	Priority Rules in Waiting Lines		
10/6/2015	14	Throughput Losses;		HW5
<b>10/11/2015</b>		<b>NO CLASS: OCTOBER BREAK</b>		
<b>10/13/2015</b>		<b>NO CLASS: MAKE-UP FOR MIDTERM 1</b>	9	
10/18/2015	15	Quality Management	10	HW6
10/20/2015	16	TPS	11	
10/25/2015	17	Statistical Process Control		
10/27/2015	18	The Newsvendor Model	12	HW7
11/1/2015	19	The Newsvendor Model		
11/3/2015	20	Reactive Capacity Models	13	HW8
11/8/2015	21	Review		
<b>11/8/2015</b>		<b>EVENING Midterm 2</b>		
11/10/2015	22	Order-up-to Inventory Model	14	
11/15/2015	23	Inventory Management		
11/17/2015	24	Revenue Management	16	HW9
<b>11/22/2015</b>		<b>NO CLASS: MAKE-UP FOR MIDTERM 2</b>		
<b>11/24/2015</b>		<b>NO CLASS: THANKSGIVING VACATION</b>		
11/29/2015	25	Beer Game Intro		
12/1/2015	26	Beer Game	17	
12/6/2015	27	Supply Chain Management;		HW10
12/8/2015	28	Review		
<b>TBD</b>		<b>Final Exam</b>		