

# Business Management 3230

## Introduction to Operations Management: Improving Competitiveness in Organizations

DAYS	SECTIONS	TIMES	LOCATION
Wednesday (Lecture)	3230-0011	9:35 – 10:55 am	SB 330
	3230-0800	6:45-8:05 pm	SB 105
Friday (Recitation)	3230-0011	9:35-10:55 am	SB 330
	3230-0801	8:00-9:20 am	SB 330
	3230-0802	11:10-12:20 pm	GE 365
	3230-0803	12:45-2:05 pm	SB 330
	3230-0804	2:20-3:40 pm	SB 330

### I. FACULTY

Name: Steve Lundregan

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Office location: 648 Fisher Hall

Office hours: Wednesday 3-5 pm and by appointment

Philosophy: "Everyone gets the experience. Some get the lessons." - *T.S. Elliot*

### II. COURSE DESCRIPTION

Business Management 3230 is designed to provide students with a broad understanding of how effective operations and supply chain management contributes to the competitiveness and survival of manufacturing, service, and non-profit organizations. Students will apply selected concepts, tools, and methods to address strategic and tactical operational challenges including the ability to analyze, control, and improve critical processes responsible for efficiently making and delivering goods and services. Qualitative and quantitative techniques are considered with a focus on using these techniques to solve problems and strive for continuous improvement. The course explicitly recognizes that the operations (& supply chain) function is embedded within an organization and also within a supply chain and, therefore, adopts a "systems" perspective in presenting issues, problems, and decision tools.

### III. COURSE OBJECTIVES

1. Explain how operations (and supply chain) functions and practices contribute to the overall competitiveness of any organization and its value chains.
2. Identify different components of the operations (and supply chain) function in different organizations (e.g., manufacturing or service; non-profit or for-profit; private or public.)
3. Recognize operational problems and decisions and how they relate to and affect other processes within the organization and across value chains.
4. Apply, analyze, and evaluate various concepts, methods, and tools to improve operational performance by structuring, analyzing, and solving complex problems facing operations (and supply chain) leaders and managers.
5. Generate questions and curiosity to encourage future learning.

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### IV. REQUIRED COURSE MATERIALS, ACTIVATION INSTRUCTIONS, AND PURCHASE OPTIONS

This course employs a text (note the edition), MyOMLab learning platform and Learning Catalytics. **Access to both is required for each student beginning the first week of class.** Students may purchase the text, MyOMLab and Learning Catalytics access through Canvas (where there is a MyOMLab and Mastering link and student instructions) or through the OSU bookstore (see ISBN number and instructions below).

TEXTBOOK with  
MyOMLab (KRM)

Krajewski, L. J., L. P. Ritzman, and M. K. Malhotra. 2013. Operations Management: Processes and Supply Chains. **10<sup>th</sup> Edition**. Upper Saddle River, NJ: Prentice Hall.

Learning Catalytics

MyOMLab/Learning Catalytics

#### 1. Purchase Text, MyOMLab Access and Learning Catalytics Access

- If you purchase directly from Pearson (Publisher) you can expect to pay for one of these options:
  - 1) Custom MyOMLab access with KRM **10e** eText (includes Learning Catalytics access, approx.. \$115.00)
  - 2) Custom MyOMLab access w/o eText (approx.. \$65.00) + Learning Catalytics (\$12.00)
    - \*3) print text upgrade option = \$60.00
    - \*4) etext upgrade option = \$50.00

\*these options are available within MyOMLab once a student opts in for either #1 or #2 above.
- If you purchase through the OSU Bookstore you can expect to pay for one of these options (Learning Catalytics access is included in eText):
  - 1) KRM **10e** print loose-leaf text + custom MyOMLab access w/ eText: ISBN 9781323499399 (\$221.45 retail)
  - 2) Custom MyOMLab access w/ KRM **10e** eText: ISBN 9781323484876 (\$138.00 retail)

#### 2. Activate the course

Either purchase option requires activation through Canvas. Log on to Canvas and click the **MyLab and Mastering** menu option and follow the instructions. Be prepared to supply your

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OSU ID number. **Your last name and first name on MyOMLAB must match exactly to your last name and first name on CANVAS.**

### V. COURSE LEARNING ENVIRONMENT

This section of Business Management 3230 is designed to enable student engagement and achievement of learning outcomes through active learning. Active learning engages students in the sharing of knowledge and the demonstration of acquired understanding of knowledge. “Learning Catalytics” will be employed in lecture and recitation sections. According to the developers, “Learning Catalytics is a ‘bring your own device’ web-based student engagement, assessment, and classroom intelligence system.” That means **Wi-Fi enabled mobile technology is required in class**. While smartphones will work, laptops or tablets are recommended as they make it easier to work on and share with other students.

Students must attend at least one of the first two scheduled class sections or risk being disenrolled. These first two sessions are especially **important in this section** because time will be allotted for student questions about course access, the new learning platform, and classroom engagement procedures.

Each week, **students can expect** a weekly “cadence” of activity:

1. Read assigned text and cases (before lecture class)
2. Attend and participate in lecture class (same time each week)
3. Do assigned homework, quiz, and/or simulation (due same time each week)
4. Attend and contribute to recitation class (same time each week)

**Instructors will expect** that you have read and acquired basic understanding of concepts, tools, and methods from the assigned textbook and cases before class, and you have completed assigned homework, quizzes, and simulations. (See DETAILED SCHEDULE.)

**“Lecture” class time will explore** concepts, tools, and methods through:

- Slide supported lectures that reinforce and supplement text and case readings
- Discussions of real-world events, case examples, and video materials
- Two-way engagement using “Learning Catalytics”

**“Recitation” class time will apply** concepts, tools, and methods through:

- Demonstrations of applied methods and problems
- Individual and team problem solving using “Learning Catalytics”
- Hands-on simulations

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Note: Recitation sessions may use worksheets or other support material from course Modules in Canvas. We recommend that students **download these before class** and print if desired as hard copies will not be available from the instructors.

### VI. STUDENT EVALUATIONS

Your Final Course Grade will be computed based on the following evaluation categories and subject to the **Academic Misconduct** policy (see the OTHER RELEVANT POLICIES section):

A.	Course Participation (Lecture Learning Catalytics)	10 points
B.	MyOMLab Quizzes	5 points
C.	MyOMLab Homework Problems	10 points
D.	In-Class Assignments (Recitation Learning Catalytics)	20 points
E.	Simulation Assignment	5 points
F.	Exams (50% Total)	
	• Mid-Term Exam	20 points
	• Comprehensive Final Exam	30 points
		100 points

#### A. Course Participation (Lecture Learning Catalytics)

Course Participation is based on **attending** lectures and recitations, answering questions, and working with other class members to assist in the learning process. Individual participation points will be awarded during each lecture session using Learning Catalytics. **(Note: Individual Learning Catalytic responses are being recorded and credit is only granted when students**

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**answer questions during class.)** Your Final Course Grade will include 10 of the 12 Lecture Learning Catalytics performance scores (i.e., drop 2 lowest scores).

Accurate grading requires attending your scheduled recitation session.

### B. MyOMLab Quizzes

There are 10 scheduled MyOMLab Quizzes, all equally weighted. MyOMLab Quizzes include multiple-choice questions designed to gauge how well you understand assigned materials.

Assigned MyOMLab **Quizzes are due each Friday (recitation day) by midnight.** (See the DETAILED SCHEDULE for which sections have assigned MyOMLab Quizzes.) You are given only one chance to complete each quiz and have to complete them within 30 minutes. Due dates are **not negotiable.**

### C. MyOMLab Homework Problems

There are 12 scheduled MyOMLab Homework Problems, all equally weighted. Homework problems allow you to apply methods and tools. You are given five attempts to master the assigned Homework Problems in MyOMLab.

Assigned MyOMLab **Homework Problems are due each Friday (recitation day) by midnight.** (See DETAILED SCHEDULE for specific homework problem assignments). Due dates are not negotiable.

### D. In-Class Assignments (Recitation Learning Catalytics)

Recitation sessions will also employ Learning Catalytics where students will be working individually and in teams to complete assignments involving problems related to each weekly topic. Students will be scored on each assignment, 80% of the score based on your individual performance and 20% on your team performance. Students will only receive credit if the student fully participates in the individual round. Your Final Course Grade will include 10 of the 12 Recitation Learning Catalytics scores (i.e., drop 2 lowest scores).

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### E. Simulation Assignments

This course includes four simulation exercises giving students the opportunity to experience challenges and make decisions similar to those facing operations managers. (See DETAILED SCHEDULE for dates and topics). Five percent (5 points) of your Final Course Grade will be based on your individual simulation scores. You will have unlimited attempts at each simulation and your **score is based on your best performance**.

### F. Exams

Two exams – a Mid-Term Exam and a Comprehensive Final Exam – have been scheduled for this course. Both exams:

- Have been scheduled for the date and time noted in the DETAILED SCHEDULE
- Cover conceptual and technical content from assigned readings and in-class activities
- Are “closed” in nature – no access to textbook, notes, neighbors, etc.

**NOTE:** No make-up, late, or early exams will be given except for excused absences due to **documented** medical emergencies and university-sanctioned activities.

## VII. OTHER RELEVANT POLICIES

### A. Academic Misconduct

Academic integrity is essential to maintaining a learning environment that fosters excellence in teaching, research, and other educational and scholarly activities. The Ohio State University and the Committee on Academic Misconduct expect that all students have read and understand the Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. “Academic Misconduct” occurs when there is an intentional failure by students to follow the rules and guidelines established in the Code of Student Conduct and those established specifically for this course.

In particular, any material submitted for course credit must be the work of an individual student for an individual-based assignment or the work of a team of students for a group-based assignment. Plagiarism is a serious offense. Students should not discuss, read, text message, e-mail, provide access to documents, or share the work, thoughts, ideas, or solutions

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regarding graded evaluation categories with other individuals or teams of students. When outside references are used, they must be properly referenced. Students are recommended to protect their own work from being copied or plagiarized by others, such as by collecting printed materials from the lab printers and disposing of rough drafts at home. Written assignments that are similar to current or past written assignments beyond statistical chance may result in the initiation of serious disciplinary action.

Please remember that when a student is suspected of having committed “Academic Misconduct” in this course, I am obligated to report my suspicions to the Committee on Academic Misconduct. Such suspicions will be investigated and when determined to be in violation of the Code of Student Conduct will result in sanctions ranging from failing the course (“E” grade) to suspension or dismissal from The Ohio State University.

### B. Disability Accommodation

Students with a disability should arrange an appointment to meet with me as soon as possible so that we can discuss the course format and explore potential accommodations. Please remember that I will be relying on the Office for Disability Services for assistance in verifying need and developing accommodation strategies. The verification process should begin as soon as possible

DETAILED SCHEDULE (TENATIVE)

Class Session & Date		Topic	Required Reading	MYOMLAB ASSIGNMENTS DUE Fridays Midnight
1L	1/11 Wed.	Introductions <ul style="list-style-type: none"> <li>• Syllabus</li> <li>• MYOMLAB / CANVAS / LC</li> <li>• Winning with Operations (KRM-1)</li> </ul>	Syllabus	
2R	1/12 or 1/13 Thur/Fri	Using Operations to Compete (KRM-1)	KRM-1 (p. 1-25) BSB Inc. (case)	<ul style="list-style-type: none"> <li>• Quiz1, KRM-1 (p. 1-25)</li> </ul>
3L	1/18 Wed.	Process Strategy (KRM-3)	KRM-3 (p. 89-111, 99-100 & pp. 31-35)	
4R	1/19 or 1/20 Thur/Fri	Process Strategy (KRM-3)		<ul style="list-style-type: none"> <li>• HW1, KRM-1: Productivity Calculations (prob. 6, p. 27)</li> <li>• Quiz2, KRM-3 (p. 89-111 &amp; p. 31-35)</li> </ul>
5L	1/25 Wed.	Capacity & Constraint Management (KRM-6)	KRM-6 (p. 201-217)	
6R	1/26 or 1/27 Thur/Fri	Capacity & Constraint Management (KRM-6 & 7)	KRM-7 (p. 243-262)	<ul style="list-style-type: none"> <li>• HW2, KRM-A,3: Break-even (prob. 1, p. 112; prob. 4 &amp; 7, p. 46)</li> <li>• Quiz3, KRM-6 (p. 201-217)</li> </ul>
7L	2/1 Wed.	Capacity & Constraint Management (KRM-7)	KRM – Supplement B, p. 225-235	
8R	2/2 or 2/3 Thur/Fri	Capacity & Constraint Management (KRM-7)		<ul style="list-style-type: none"> <li>• Quiz4, KRM-7 (p. 243-262)</li> <li>• HW3 KRM-6: Capacity Planning (prob. 2 &amp; 5, p. 217-218)</li> </ul>
9L	2/8 Wed.	Supply Chain Inventory Management	KRM-9 (p. 307-336)	
10R	2/9 or 2/10 Thur/Fri	Supply Chain Inventory Management		<ul style="list-style-type: none"> <li>• SIM1: Inventory</li> <li>• Quiz5 KRM-9 (p. 307-336)</li> <li>• HW4 KRM-7: Bottleneck and Product Mix (prob. 1, 3-4, p. 262-264)</li> </ul>
11L	2/15 Wed.	Supply Chain Inventory Management		
12R	2/15 or 2/16 Thur/Fri	Supply Chain Inventory Management		<ul style="list-style-type: none"> <li>• HW5, KRM-9: Inventory (prob. 3, 5, &amp; 7, p. 337)</li> <li>• HW6, KRM-9: Inventory Q &amp; P Systems (prob. 20-21, p. 339)</li> </ul>
13L	2/22 Wed.	Mid-Term Review		
14R	2/23 or 2/24 Thur/Fri	<b>TAKE Mid-Term Exam in Class, normal place, normal time</b>		

**DETAILED SCHEDULE (TENATIVE)**

<b>Class Session &amp; Date</b>		<b>Topic</b>	<b>Reading</b>	<b>MYOMLAB ASSIGNMENTS DUE Fridays Midnight</b>
15L	3/1 Wed.	Quality and Performance	KRM-5 (p.157-188)	
16R	3/2 or 3/3 Thur/Fri	Quality and Performance		<ul style="list-style-type: none"> <li>• SIM2: QM</li> <li>• QUIZ6: Quality and Performance (KRM-5, p.157-188)</li> </ul>
17L	3/8 Wed.	Quality and Performance		
18R	3/9 or 3/10 Thur/Fri	Quality and Performance		<ul style="list-style-type: none"> <li>• HW6: SPC (KRM 5.13 &amp; 5.15, p.190-193)</li> <li>• HW7: SPC (KRM 5.11 &amp; 5.19, p.190-193)</li> </ul>
<b>3/15 Wed.</b>		<b>No Class – Spring Break</b>		
<b>3/16 or 3/17 Thur/Fri</b>		<b>No Class – Spring Break</b>		
19L	3/22 Wed.	Lean Systems	KRM-4 (p.119-144)	
20R	3/23 or 3/24 Thur/Fri	Lean Systems		<ul style="list-style-type: none"> <li>• Quiz7: Process Analysis (KRM-4, p.119-144)</li> <li>• HW7: Quality Control Tools (KRM 4.20 &amp; 4.24, p.149-150)</li> </ul>
21L	3/29 Wed.	Lean Systems	KRM-8 (p 275-299)	
22R	3/30 or 3/31 Thur/Fri	Lean Tools		<ul style="list-style-type: none"> <li>• Quiz7: Lean Systems (KRM-8, p.275-299)</li> <li>• HW8: VSM (KRM-8.11, p.301)</li> </ul>
23	4/5 Wed.	Project Management	KRM-2 (p.49-77)	
24	4/6 or 4/7 Thur/Fri	Project Management		<ul style="list-style-type: none"> <li>• SIM3 PM</li> <li>• Quiz9: PM (KRM-2. p.49-77)</li> <li>• HW11: PM and Crashing (KRM 2.6 &amp; 2.25, p.78-80)</li> </ul>
26	4/12 Wed.	Supply Chain Design & Supply Chain Integration	KRM-10 (p.359-377)	
27	4/13 or 4/14 Thur/Fri	Supply Chain Design & Supply Chain Integration		<ul style="list-style-type: none"> <li>• Sim4: Supply Chain</li> <li>• Quiz10: Supply Chain Design &amp; Integration (KRM-10, p.359-377)</li> <li>• HW12: SC Performance and Sourcing (KRM 10.9, p.379)</li> </ul>
<b>4/19 Wed.</b>		<b>No Classes – Alignment between sections</b>		
28	4/20 or 4/21 Thur/Fri	<b>Final Review</b>		
<b>May 1 Monday</b>		<b>TAKE Comprehensive Final Exam, 6:00PM - 7:45PM, Location TBA</b>		