MBA 6231 & 6232
Operations Management (I & II)
Fall/Spring 2015-2016
(Fall Semester: Tue-Thurs 8:30-10 AM & 10:15 AM – 11:45 AM
Spring Semester: Mon-Wed 8:30-10 AM & 10:15 AM – 11:45 AM)

I. Instructor
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Office Hours By Appointment

I. Course Overview

Operations Management (MBA 6231 & MBA 6232) is designed to provide a solid foundation and deeper understanding of how the operations function contributes to ensuring effective and efficient flow of materials and information within and outside the organization. We will take a broad managerial perspective emphasizing the strategic impact of the operations decisions and the interfaces between operations and the other functional areas of the organization. We will look at the operations function in both service and manufacturing context and investigate how it provides sustainable competitive advantage along the dimensions of cost, quality, delivery, flexibility and innovation.

The course will introduce you to several decision making areas in operations, including operations and supply chain strategy, process design, innovation, quality management, inventory management and project management. We will mainly rely on cases to learn these concepts and you will have an opportunity to debate how these might be applied within your organization. The course will be co-taught by both the instructors who will lead the discussions based on their areas of expertise. We have “one voice” so please include both the instructors in all the emails and other discussions.

II. Course Materials

A. Course Packet (CP), available at the OSU bookstore (ISBN: 9781308268071). The packet contains Harvard Cases and Chapters from Operations and Supply Chain Management – The Core (Jacobs and Chase). This packet is an essential aid for the lectures. Make sure you have the right course packet (Check instructor’s name)

B. Supplemental Reading: Learning to See: Value Stream Mapping to Add Value and Eliminate Muda (by Mike Rother, John Shook) ISBN: 978-0966784305

III. Course Objectives

The specific learning objectives for this course include:

A. Basic operations management terms and concepts – Understand important operations management terms and concepts and how they are related to one another.

B. Operations Strategy – Understand the relationship between cost, quality, delivery, flexibility and innovation, and how the operations strategy is related to business strategy and corporate strategy.

C. Link between operations and other functional areas – Understand the relationships between operations and other functional areas of a business such as marketing, finance, accounting, human resources, information systems, and logistics/transportation and how they can work together to achieve the business strategy.

D. Approaches to understand design and improve processes – Be able to understand, design and improve systems that help achieve the operations strategy using tools such as Six Sigma and Lean Principles.

E. Move away from the “Tyranny of OR” and “Embrace the Genius of AND” – Understand the synergies between principles of quality management and innovation and how they complement each other.

F. Approaches to operations planning and control systems – Be able to understand the advantages and limitations of operations planning and control systems such as inventory theory, forecasting models, etc.

G. Operations management tools – Be able to understand and apply operations management tools such as forecasting models, control charts, quality tools, economic order quantity, and safety stock models. Problems and cases are assigned to assist you in learning these tools.

H. Operations management practice – Be able to critically evaluate and apply important and new operations management philosophies such as Six Sigma, Lean, Service Management and theory of constraints to daily life.

I. Supply Chain Management – Be able to understand the dynamics of a supply chain and the impact of supply chain decisions on the organizational performance.
IV. Grading

A. Distribution

- 30% Final Exam
- 25% Midterm Exam
- 15% Case Grades
- 10% Homework Problems
- 10% Class Participation, Simulation and In Class Experiments
- 10% Burton Group Case Analyses (2 assignments)

B. Final & Midterm Examinations

Both Midterm and Final Examinations will be a combination of case analysis, essay questions and problem sets. These exams will be in-class, closed book and closed notes. The material for these exams can be based on anything covered in the lecture, text, other assigned readings and videos and guest presentations. You are not required to memorize any formulae (will be given to you) or concepts but are required to understand and apply these concepts to a given scenario or a problem.

No make-up, late or early exams will be given, except in the case of medical emergency.

C. Group Work

The group will be responsible for completing case write-ups and the Burton assignment (only one copy is needed from each group). Groups are occasionally difficult, but group work enhances the learning experience and closely matches the environment that students will face when they return to the work-world. It is common practice for groups to divide tasks among group members in order to complete the assignment. There is no problem with this “process design,” and it often is more efficient. However, it is critical that if this is done, each group member must understand exactly what the others have done. Otherwise, certain group members will be ill-prepared for class discussion (resulting in a low class participation grade) and for the exams.

D. Cases Analyses

A combination of Harvard Business School Cases and mini-cases will be used in this course. You are expected to read these cases before class. Most of your learning will occur in preparing and discussing these cases. There will be two different types of case write-ups: (1) One page critiques and (2) extended case-analyses. One page critiques will require you address a specific question or comment from the case (refer detailed syllabus for more information). All one page critiques should be double spaced, 12 pt font and 1 inch margins all around. For the extended case analyses, you will be asked to respond to the list of discussion questions. Answers will sometimes be conceptual, will sometimes require “crunching numbers,” and often will require
both. Please do not make broad generalizations or unjustified decisions. The quality of your write-up will be judged almost solely on the reasons and the depth of thought behind each decision or answer, and very little on the answer itself. Write in a concise manner and use diagrams and tables where appropriate. Do not provide a review of the case at the beginning of the write-up. Do not simply list the questions and respond to them in your report. Your extended case analyses should not be more than 4 pages (all inclusive), 12 pt font and double spaced.

E. Homework and Other Assignments

You will be given a number of problem set assignments throughout the course. The assignments will help you to think about and understand concepts that are important for the exam. I will collect these assignments and randomly grade sample problems. Answer keys will be provided on the course web site. To promote learning, you may discuss homework assignments with any other current student enrolled in the course but I require individual assignments.

F. Root Beer Game Simulation

This simulation provides students with a first-hand account of the inherent challenges in supply chain management. Students play one of four roles in a root beer supply chain: Factory, Distributor, Wholesaler, or Retailer; each week they need to place their root beer orders from their direct supplier based on their current inventory level and their (estimated) demand from the next node on the chain. All players have a common goal: minimizing costs tied up in carrying unnecessary inventory – which could put one out of business – yet avoiding the costs of inventory shortages. In the process, students learn how to apply important principles of operations management and become familiar with the vernacular of this management discipline. Limited visibility along the chain, combined with shipping delays is key factors in the simulation. The simulation runs about 40 weeks. Harvard charges a minimum fee of $12.50 per student that must be paid online. I will give you a special registration URL. When you register the simulation will automatically associate you with the correct school/faculty/course and then require you to purchase your “seat” in the simulation. Each student must be present for the simulation.

G. Class Participation

Your class participation grade will primarily depend on the quality of comments made during class, particularly during case discussions. Quality of participation, i.e. insightful comments or questions, is much more important than quantity. Also, a consistent level of participation throughout the semester will receive a much higher score than a high level of participation for just a few classes. You are encouraged to check with me periodically to find about your participation grade. The following class participation rubric has been developed to evaluate the class participation. Participation is graded on a scale from 0 (lowest) through 4 (highest), using the criteria below. I have a no laptop policy for sessions that involve case discussions and HBR articles. However, you are welcome to take notes using laptop when discussing lecture notes. The criteria focus on what you demonstrate in class.
<table>
<thead>
<tr>
<th>Grade</th>
<th>Criteria</th>
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| 0     | • Absent  
       • Checking emails, texting or browsing during class |
| 1     | • Present, not disruptive.  
       • Tries to respond when called on but does not offer much.  
       • Demonstrates very infrequent involvement in discussion. |
| 2     | • Demonstrates adequate preparation: knows basic case or reading facts, but does not show evidence of trying to interpret or analyze them.  
       • Offers straightforward information (e.g., straight from the case or reading), without elaboration or very infrequently (perhaps once a class).  
       • Does not offer to contribute to discussion, but contributes to a moderate degree when called on. |
| 3     | • Demonstrates good preparation: knows case or reading facts well, has thought through implications of facts.  
       • Offers interpretations and analysis of case material (more than just facts) to class.  
       • Contributes well to discussion in an ongoing way: responds to other students' points, thinks through own points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion.  
       • Demonstrates consistent ongoing involvement. |
| 4     | • Demonstrates excellent preparation: has analyzed case exceptionally well, relating it to readings and other material (e.g., readings, course material, discussions, experiences, etc.).  
       • Offers analysis, synthesis, and evaluation of case material, e.g., puts together pieces of the discussion to develop new approaches that take the class further.  
       • Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds very thoughtfully to other students' comments, contributes to the cooperative argument-building, suggests alternative ways of approaching material and helps class analyze which approaches are appropriate, etc.  
       • Demonstrates ongoing very active involvement. |

V. Honor Code

Any use of case analyses or any other material in any format from other sections of this course or any course taught at any time in the past or present will be considered a violation of the honor code. The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University’s Code of Student Conduct and this syllabus may constitute “Academic Misconduct.”

VI. Disability Accommodation

If you need an accommodation based on the impact of a disability, please arrange an appointment with me as soon as possible. We need to discuss the course format and explore potential accommodations. I rely on the Office for Disability Services (150 Pomerene Hall) for assistance in verifying need and developing accommodation strategies. You should start the verification process as soon as possible.

VIII. Suggestions for surviving and thriving in this course
A. Ask good (hard) questions and be intellectually involved with the class discussion. Ask the "next" question. Develop a skeptical approach to the so-called theories and highly touted "best practices."

B. Be flexible -- we will try very hard to follow the syllabus exactly -- but we may have to make a few mid-course corrections.

C. Come prepared for class -- You should plan on spending approximately seven to ten hours outside of class for each week (some sessions require more work than others). Outside class preparation includes reading textbook chapters, reading articles, case preparations, Internet assignments, group meetings, and homework problems.

D. Try to keep track of the main ideas discussed in the course and the readings. We will highlight these as we go through the course and then summarize them at the end.
### MBA 6231 & 6232 Operations Management
(Refer detailed syllabus for class structure and discussion questions)

**Class Schedule (MBA 6231)**

<table>
<thead>
<tr>
<th>Part I – Strategy and Process Analysis</th>
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<tbody>
<tr>
<td><strong>Tuesday (October 20)</strong> Introduction and Operations Strategy <em>(AC &amp; James)</em></td>
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<tr>
<td><strong>Read:</strong> Chapters 1 &amp; 2 Jacobs and Chase (CT)</td>
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<tr>
<td><strong>Due:</strong> None</td>
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<tr>
<td><strong>Thursday (October 22)</strong> Operations Strategy <em>(AC)</em></td>
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<tr>
<td><strong>Read:</strong> McDonalds Corporation Case (CT)</td>
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<tr>
<td><strong>Due:</strong> One-page Critique <em>(See Detailed Syllabus)</em></td>
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<tr>
<td><strong>Tuesday (October 27)</strong> Process Selection <em>(James)</em></td>
</tr>
<tr>
<td><strong>Read:</strong> Linking Manufacturing Process and Product Life Cycles <em>(Carmen)</em></td>
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<tr>
<td><strong>Due:</strong> None</td>
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<tr>
<td><strong>Thursday (October 29)</strong> Market Requirements and Process Selection <em>(James)</em></td>
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<tr>
<td><strong>Read:</strong> Eastern Gear Case (CT)</td>
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<tr>
<td><strong>Due:</strong> None</td>
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<tr>
<td><strong>Tuesday (November 3)</strong> Process Selection/Mass Customization <em>(James)</em></td>
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<tr>
<td><strong>Read:</strong> Mi adidas Case (CT)</td>
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<tr>
<td><strong>Due:</strong> Extended Case Analyses of Mi adidas Case</td>
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<tr>
<th>Part II – Lean Management</th>
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<tbody>
<tr>
<td><strong>Thursday (November 5)</strong> Lean Principles <em>(AC)</em></td>
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<tr>
<td><strong>Read:</strong> Decoding the DNA of Toyota <em>(Carmen)</em></td>
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<tr>
<td><strong>Read:</strong> Checklist <em>(Carmen)</em></td>
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<tr>
<td><strong>Due:</strong> None</td>
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<tr>
<td><strong>Thursday (November 10)</strong> Value Stream Mapping – Current State Map <em>(AC)</em></td>
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<tr>
<td><strong>Read:</strong> Pencil Pusher <em>(Carmen)</em></td>
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<tr>
<td><strong>Due:</strong> None</td>
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<tr>
<td><strong>Tuesday (November 12)</strong> Value Stream Mapping - Future State Map <em>(AC)</em></td>
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<tr>
<td><strong>Read:</strong> Burton Group <em>(Carmen)</em></td>
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<tr>
<td><strong>Due:</strong> Come prepared with Future State for Pencil Pusher <em>(Not Graded)</em></td>
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<th>Part III – Quality Management and Innovation</th>
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<tr>
<td><strong>Thursday (November 17)</strong> Quality Control <em>(AC)</em></td>
</tr>
<tr>
<td><strong>Read:</strong> Chapter 10 Jacobs &amp; Chase (CT)</td>
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Tuesday (November 19) Process Capability (AC)
Problems Chapter 10: 4, 8, 10, 12, 14, 15
Due: None

Tuesday (November 24) Introduction to Six Sigma (AC)
Read: Six Sigma at 3M Case (CT) & Supplemental Reading (See Carmen)
Due: Quality Homework Problems Chapter 6
Due: One page Critique (See detailed syllabus)

Thursday (November 26) Thanksgiving Holiday

Tuesday (December 1) NPD & Innovation (AC)
Read: Stage-Gate Systems (Carmen)
Due: Burton Group A3 Assignment (See Carmen)

Thursday (December 3) Design & Innovation (AC)
Read: BMW 7 Series Project A (CT)
Due: None

Tuesday (December 8) Midterm Examination

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<th>Beginning of Second Half (MBA 6232)</th>
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Part IV – Service Design

Monday (January 11) Introduction to Services & Psychology behind Waiting (James)
Read: Note on the management of queues (Carmen)
Read: Designing wait that works (CT)
Due: None

Wednesday (January 13) Service Strategy (James)
Case: Ritz Carlton Case Analysis (CT)
Due: One page critique (See detailed syllabus)

Monday (January 18) MLK Day No Class

Wednesday (January 20) Service Quality (AC)
Read: Northwest Airlines (CT) & American Airlines (Carmen)
Due: Burton Group Patient Experience Assignment

Part V – Supply Chain Management

Monday (January 25) Inventory Management I (James)
Read: Chapter 11 Jacobs & Chase (CT)
Due: None
Wednesday (January 27) Inventory Management II (James)
  Homework Problems Chapter 11: 4, 8, 10, 12, 14, 15
  Due: None

Monday (February 1) Essential Elements of Supply Chain Management (James)
  Read: What is the right supply chain for your product? (Carmen)
  Due: Inventory Homework Problems Chapter 11

Wednesday (February 3) Supply Chain Management Simulation (AC & James)
  Root Beer Simulation
  Due: None

Monday (February 8) Supply Chain Collaboration
  Read: Barilla SpA Case (CT)
  Due: None

Part VI – Global Operations

Wednesday (February 10) Distributed Product Development (AC)
  Read: How to Succeed in Distributed Product Development (Carmen)
  Due: None

Monday (February 15) International Operations (James)
  Read: Zara Case (CT)
  Due: Extended Case Analysis for Zara

Wednesday (February 17) Global Supply Chain Decisions (James)
  Read: The Wal-Mart Supply Chain Controversy (CT)
  Due: None

Part VII – Project Management and End of Life Design

Monday (February 22) Project Management (James)
  Read: Chapter 5 Jacobs & Chase (CT)
  Homework Problems Chapter 5: 3, 4, 5, 11, 14, 15

Wednesday (February 24) Environmental Sustainability & Course Wrap-Up (James)
  Read: Cradle-to-Cradle Design at Herman Miller
  Moving Toward Environmental Sustainability
  Due: Project Management Problems Chapter 5

Final Exam – TBD
CT: Custom Text
Carmen: See Course Website
Peer Evaluation – Group Work
(Due via Email on or before 2/24/2016)

Peer evaluations will be a part of your group work. When you are evaluating the efforts of yourself and your peers you should take the following actions into account: quality of effort, quantity of effort, working relationship with group members, and completion of assignments in a timely fashion.

Evaluations are due before the student presentations. DO NOT hand in the peer evaluations with your projects. Please complete these evaluations and EMAIL them to the instructor.

If you believe that everyone contributed equally, you could send the instructor with an email stating this fact.

Your Name:______________________________   Team Name _____

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<tr>
<th>Group Members (including yourself):</th>
<th>Weight (out of 100%)</th>
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TOTAL 100%

COMMENTS:

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