OM 303-C01  
Operations Management  
Summer 2020  
Syllabus

**Course Instructor:** Prof. Ioannis (Yannis) Bellos (ibellos@gmu.edu)

**Course Dates:** July 6-August 8  
Distance Learning on Blackboard (Bb)

**Office Hours:** Th. 8-9:00 pm & Sat. 10:30 am-noon  
Bb Collaborate Ultra

**Course Reference Materials:** Course Reader available at Harvard Business Publishing:  
https://hbsp.harvard.edu/import/733133

**Optional Textbook:** Operations and Supply Chain Management 14E  
ebook with only the assigned chapters available at:  
https://create.mheducation.com/shop/  
ISBN: 9781308279534

**Course Description**

This course introduces managerial principles and analytical methods in Operations Management (OM). OM consists of business functions that guide and control value-adding transformation processes in which resources are transformed into goods or services. OM helps both for-profit and non-profit business organizations improve their transformation processes in order to gain competitive advantage. This course discusses a wide range of OM concepts, such as operations strategy, process selection, queuing management, quality management, supply chain management, capacity planning, and inventory control. These concepts assist operations managers in designing, planning, and implementing effective and efficient transformation processes. Students in this course develop practical OM skills through class discussions, homework exercises, case studies, and game activities.

**Prerequisites**

A student must have received a C or higher in OM 210 (formerly DESC 210) and have sophomore standing. It is assumed that each student is proficient in elementary algebra, calculus, probability, and geometry. Familiarity with MS Word, Excel, and PowerPoint is also expected. Deficiencies should be self-remediated early in the semester.
Undergraduate Program Learning Goals

Goals addressed in this course are in **bold**:

- Our students will be competent in their discipline.
- **Our students will be aware of the uses of technology in business.**
- Our students will be effective communicators.
- **Our students will have an interdisciplinary perspective.**
- **Our students will be knowledgeable about global business and trade.**
- Our students will recognize the importance of ethical decisions.
- Our students will be knowledgeable about the legal environment of business.
- **Our students will be knowledgeable about team dynamics and the characteristics of effective teams.**
- Our students will understand the value of diversity and the importance of managing diversity in the context of business.
- **Our students will be critical thinkers.**

Special Course Objectives

- Build an understanding of how OM fits into the organization.
- Provide a knowledge base for conversing with operations personnel.
- Build both quantitative and qualitative analysis skills, especially those needed for managing important business tradeoffs.
- Provide common sense modeling concepts, which can be used to help managers evaluate various problems that arise in practice.
- Introduce real-world applications and their connection with OM.
- Understand and appreciate the role of variability in an organization.

Class Procedure

The class can be described as a mix of online (Blackboard) learning material, video-tutorials, Voice over PowerPoints (VoPPT), and readings. Students are advised to follow the sequence of the learning materials as it appears on Blackboard. All materials are equally important, with a special emphasis on the video-tutorials, VoPPTs, when available during a module. This course tends to be quantitative in that we use math; however, the course requires written skills as well. Specifically, you should be able to translate the written problem into the appropriate analytical tool to be used (i.e., to effectively communicate your recommendations).

Practice Problems

Practice problems are provided on Bb along with their solutions. Note that exam questions are similar to practice problems. In order to do well on exams, every student needs to devote certain
individual efforts on these problems and additional examples provided throughout the course. Students are encouraged to discuss their answers in small groups and/or to reach out to the instructor to assure full understanding of course materials.

Quizzes

There will be four quizzes during Weeks 1, 2, 3, and 4. The quizzes will be based on the learning material assigned to the corresponding weeks (i.e., Weeks 1 (Part I and II), 2 (Part I and II), 3, and 4). Each will be administered through Blackboard and it will be timed (once you start the quiz you will not be able to pause the timer). Quizzes are open book/notes/cases/video-lectures but no collaboration with other students or use of unauthorized material (i.e., material not provided through the course’s Bb or not mentioned on the Syllabus) is allowed. Tips for taking a Blackboard test: i) close all other programs running on your computer, ii) avoid using a wireless connection, if possible, iii) do not use your browser’s refresh, back, or forward buttons or your mouse’s scroll wheel, iv) single-click the buttons-do not double click, and vi) save your work often, save each question as you answer.

Examinations

During the semester, there will be one midterm and one final examination. The midterm will cover the material covered up to and including Week 2. The final examination is comprehensive for the entire course and is given as scheduled. Both exams will be administered through Blackboard and they will be timed (once you start the exam you will not be able to pause the timer). No extensions will be given without a valid, per university policy, documented excuse. Information presented through Blackboard (e.g., learning materials or even discussion board) may be included on the examinations. Exams are open book/notes/cases/video-lectures but no collaboration with other students or use of unauthorized material (i.e., material not provided through the course’s Bb or not mentioned on the Syllabus) is allowed.

Questions

All students are encouraged to bring questions, concerns and comments to my attention as soon as they arise. Please do not wait! Once final grades are submitted, changes to grades will only be made to correct errors in tallying scores. Please also utilize the Discussion board to post comments, questions, or any kind of feedback.

Online Class Participation-Current Events Discussions

Current issues in operations are reviewed in business publications such as Business Week, Fortune, The Wall Street Journal, and the business section of local newspapers. A regular perusal of these sources by students, as well as other industry specific publications and web sites, will ensure richer discussions. These activities are essential to further benefit from the course and will make a positive contribution to your learning process.

To help us all identify these related current events, using the Current Events Discussion Forum, each week two groups are assigned to the discussion leaders; you will be automatically assigned to groups at the beginning of the course. For the week your group leads, please post one article related to Operations Management. Each article posting should include a 1-2 paragraph summary of the article, another paragraph on why it’s interesting and/or useful, how it is related to Operations Management, and the link/source information to the article. Your group should continue
to moderate the discussion by replying to others’ comments. Grading is based on the usefulness of the article (interesting, related to operations, etc.) and the extent of moderation. Please post articles early in the week so others can read and comment on them. Unrelated articles, online comments and articles/comments posted the last day without time for comments will reduce your participation grade. Weeks begin and end on each Sunday 11:59 pm.

The weeks your group is not the leader you should comment (seriously and in a useful, substantive manner) individually on the articles. Over the course you should comment on at least 2 articles beyond your assigned week. The idea is to get additional exposure to Operations Management in practice without having to read every news source personally.

Grading

The course grade will be out of 1000 points. The breakdown is as follows. Your total point score out of 1000 determines your final letter grade. There will be no extra credit or make-up work.

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<thead>
<tr>
<th></th>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Group Online Participation</td>
<td>50</td>
<td>5%</td>
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<tr>
<td>Individual Online Participation</td>
<td>50</td>
<td>5%</td>
</tr>
<tr>
<td>Quizzes (4 × 75 pts)</td>
<td>300</td>
<td>30%</td>
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<tr>
<td>Midterm</td>
<td>275</td>
<td>27.5%</td>
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<tr>
<td>Final Exam</td>
<td>325</td>
<td>32.5%</td>
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<tr>
<td>Total</td>
<td>1000</td>
<td>100%</td>
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GRADING SCALE: A = 90-100; B = 80-89.99; C = 65-79.99; F = below 65 (+/- system used)

Grade Appeals

All students are encouraged to bring questions, concerns and comments to my attention as soon as they arise. Please do not wait! Appeals or corrections to grades on any assignment/quiz need to be made formally and in writing within one week of the graded deliverable being returned. A decision will be communicated in written form and the written decision is what counts, not any verbal communication. Once final grades are submitted, changes to grades will only be made to correct errors in tallying scores. In addition, there is a feedback section on Bb under Discussion Board that allows anonymous (or not) comments to encourage your feedback.

Academic Integrity

George Mason University shares in the tradition of an honor system that has existed in Virginia since 1842. The Honor Code is an integral part of university life. On the application for admission, students sign a statement agreeing to conform to and uphold the Honor Code. Students are responsible, therefore, for understanding the provisions of the code. In the spirit of the code, a student’s word is a declaration of good faith acceptable as truth in all academic matters. Cheating and attempted cheating, plagiarism, lying, and stealing of academic work and related materials constitute Honor Code violations. To maintain an academic community according to these standards, students and faculty must report all alleged violations of the Honor Code to the Honor Committee. Any student who has knowledge of, but does not report, an Honor Code violation may be accused of lying under the Honor Code. All students are expected to adhere to this code. All acts of academic
dishonesty will be dealt with in accordance with the provisions of this code. For more information on the University’s Honor Code, please visit https://oai.gmu.edu/mason-honor-code/.

For practical purposes, the meaning of the code for this class is:

- Cheating on exams or quizzes is not allowed. When taking the exams or quizzes, no collaboration with other students or use of unauthorized material (i.e., material not provided through the course’s Bb or not mentioned on the Syllabus) is allowed.

- Case and simulations comprise original ideas from the team members. No use of Internet or previous semester(s) papers/presentations.

- In your work on all written assignments, you may not present as your own the words, the work, or the opinions of someone else without proper acknowledgement.

- You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement.

**Disability**

All academic accommodations due to disability should be arranged through the Office of Disability Services (ODS). If you are a student with a disability and you require academic accommodations, please contact the ODS at 703-993-2474 or http://ods.gmu.edu/. Please also inform me by the end of the first week of class.

**Business Library Liaison Information**

Jo Ann J. Henson, MLIS Business and Economics Liaison Librarian Fenwick Library Fairfax Campus: http://infoguides.gmu.edu/business

**Communications**

All communications from me to you will be directed via e-mail or Bb announcements. I will address all of my e-mails and replies ONLY to your @gmu.edu e-mail address for concerns of privacy and confidentiality. If you use another e-mail account as your primary e-mail, please be sure to forward your @gmu.edu e-mail to that account.

**School of Business Standards of Behavior**

The mission of the School of Business at George Mason University is to create and deliver high quality educational programs and research. Students, faculty, staff, and alumni who participate in these educational programs contribute to the well-being of society. High quality educational programs require an environment of trust and mutual respect, free expression and inquiry, and a commitment to truth, excellence, and lifelong learning. Students, program participants, faculty, staff, and alumni accept these principles when they join the School of Business community. In doing so, they agree to abide by the following standards of behavior:

- **Respect** for the rights, differences, and dignity of others

- **Honesty and integrity** in dealing with all members of the community

- **Accountability** for personal behavior
Integrity is an essential ingredient of a successful learning community. Ethical standards of behavior help promote a safe and productive community environment, and ensure every member the opportunity to pursue excellence. School of Business can and should be a living model of these behavioral standards. To this end, community members have a personal responsibility to integrate these standards into every aspect of their experience at the School of Business. Through our personal commitment to these Community Standards of Behavior, we can create an environment in which all can achieve their full potential.

Counseling Center

George Mason University has a counseling center that can provide assistance if you find yourself overwhelmed by life, want training in academic or life skills, or the like. More information is available at http://www.gmu.edu/departments/csd/.

Writing Guidelines

Unless otherwise specified, all writing assignments should be formatted as follows: **1.5-spaced, Times New Roman, 12-point font, and 1-inch margins.** To cite and reference professional or academic sources, please use APA style. Specific instructions for in-text citations and referencing are found in the Publication Manual of the American Psychological Association 6th Edition or at http://owl.english.purdue.edu/owl/resource/560/01/.

George Mason University has a writing center that can help you improve your English writing skills. More information is available at http://writingcenter.gmu.edu/.
Schedule (Subject to Change); all times are in EST

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<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Due</th>
<th>Core Readings and Learning Materials</th>
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</thead>
<tbody>
<tr>
<td>1-Part I</td>
<td>07/06-07/12</td>
<td>What is Operations? Process Analysis</td>
<td>Quiz 1 (Bb)</td>
<td>○ Process Analysis (Core Reading)</td>
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<td></td>
<td>Current Events Posts</td>
<td>○ Videos: Process Analysis (skim thru Core Reading first)</td>
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<tr>
<td>1-Part II</td>
<td></td>
<td>More Process Analysis</td>
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<td>○ Video: Bread Making Example</td>
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<td>Goods vs. Services Service Processes</td>
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<td>○ Video: Spectrum of Processes</td>
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<td>○ “The Trade-off Between Efficiency and Service”</td>
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<tr>
<td>2-Part I</td>
<td>07/13-07/19</td>
<td>Variability and Processes Queueing</td>
<td>Quiz 2 (Bb)</td>
<td>○ Managing Queues (Core Reading)</td>
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<tr>
<td>2-Part II</td>
<td></td>
<td>Pooling</td>
<td>Current Events Posts</td>
<td>○ Videos: Variability and Processes</td>
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<td>○ Videos: Queueing (skim thru Core Reading first)</td>
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<td>○ The Pooling Principle: Sections 1, 3, 4</td>
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<td>○ Videos: Pooling, Cost-based Staffing</td>
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<td>○ Videos: Review problems</td>
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Midterm will be released on Sun 07/19 at 11:59 pm; due Wed 07/22 at 11:59 pm

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<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Due</th>
<th>Core Readings and Learning Materials</th>
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<tbody>
<tr>
<td>3</td>
<td>07/20-07/26</td>
<td>Inventory Management</td>
<td>Midterm</td>
<td>○ Managing Inventory (Core Reading)</td>
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<td>Current Events Posts</td>
<td>○ Videos: Inventory Management (skim thru Core Reading first)</td>
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<td>○ The Pooling Principle: Sections 2; Bb</td>
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<td>4</td>
<td>07/27-08/02</td>
<td>Supply Chain Management Introduce Littlefield</td>
<td>Quiz 3 (Bb)</td>
<td>○ Supply Chain Management (Core Reading; pp.: see Bb)</td>
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<td>Current Events Posts</td>
<td>○ Video: Newsvendor Profit</td>
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<td>5</td>
<td>08/03-08/05</td>
<td>Quality Management New Product Development</td>
<td>Quiz 4 (Bb)</td>
<td>○ Managing Quality with Process Control (Core Reading; pp.: see Bb)</td>
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<td>Current Events Posts</td>
<td>○ “Where Process-Improvement Projects Go Wrong”</td>
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<td>○ “Design Thinking”</td>
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- Summary of Important Dates and Times (EST)
  - 07/12 at 11:59 pm: Quiz 1 due on Bb.
  - 07/12 at 11:59 pm: Current Events Posts due on Bb; Groups 1&2 lead.
  - 07/19 at 11:59 pm: Quiz 2 due on Bb.
  - 07/19 at 11:59 pm: Current Events Posts due on Bb; Groups 3&4 lead.
  - 07/19 at 11:59 pm: Midterm will be released on Bb.
  - 07/22 at 11:59 pm: Midterm due on Bb.
  - 07/26 at 11:59 pm: Current Events Posts due on Bb; Groups 5&6 lead.
  - 08/02 at 11:59 pm: Quiz 3 due on Bb.
  - 08/02 at 11:59 pm: Current Events Posts due on Bb; Groups 7&8 lead.
  - 08/06 at 07:00 am: Final is released on Bb.
  - 08/08 at 11:59 pm: Quiz 4 due on Bb.
  - 08/08 at 11:59 pm: Current Events Posts due on Bb; Groups 9&10 lead.
  - 08/08 at 11:59 pm: Final due on Bb.

Updated Tuesday 30th June, 2020
• **Harvard Course Pack** ([https://hbsp.harvard.edu/import/733133](https://hbsp.harvard.edu/import/733133))
  - Process Analysis Core Reading (8007-PDF-ENG)
  - Managing Queues Core Reading (8047-PDF-ENG)
  - Managing Quality with Process Control Core Reading (8020-PDF-ENG)
  - Managing Inventory Core Reading (8016-PDF-ENG)
  - Supply Chain Management Core Reading (8031-PDF-ENG)
  - Optional: Forecasting (8042-PDF-ENG)

• *Obtain from Library Database: [http://library.gmu.edu/](http://library.gmu.edu/)
  - A list of additional optional readings, which you can also retrieve from the GMU Library Database is provided under each Week.

• On Bb
  - Videos and VoPPTs
  - The Pooling Principle
  - Newsvendor Note