

State University of New York at Buffalo
SCHOOL OF MANAGEMENT
Department of Operations Management and Strategy

MGO 302: PRODUCTION AND OPERATIONS MANAGEMENT

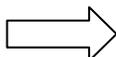
Fall 2013
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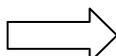
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“DROP-IN” OFFICE HOURS AND CLASS TIME: Office hours are Tuesdays and Thursdays, 11:30 AM – 1:00PM in Jacobs Room 351. Our class takes place on the University at Buffalo North Campus, classroom Jacobs 106, from 2:00 PM to 3:20 PM on Tuesdays and Thursdays.

REQUIRED TEXTBOOKS:

 **Simpson, NC and Hancock, PG, Practical Operations Management, Hercher Publishing, ISBN # 978-1-939297-006.**

 **Simpson, NC, MGO 302 “Skeleton Notes”** This is available for downloading through the “Course Documents” section of our website, or this same note packet can also be purchased on the UB campus at *Great Lakes Graphics & Printing*, although notice that purchasing a bound copy of the Skeleton Notes from *Great Lakes* is an *optional convenience*, while purchasing the textbook is required. Unlike the textbook, all materials in the Skeleton Notes can also be obtained through UBlearns as well.

COURSE PREREQUISITE: MGQ 201, Introduction to Computers and Statistics

QUESTIONS ABOUT SCORES: For questions concerning grades and scores, e-mail Mr. Sung Jin (sjin5@buffalo.edu) directly, as he will be maintaining the records for the class. This includes cases in which UBlerns is displaying something strange, like an exclamation point (“!”) instead of one your Exam Question Simulation Module scores.

ACADEMIC INTEGRITY: Your student handbook lists the Standards of Academic Integrity, and a copy is always available at <http://mgt.buffalo.edu/programs/undergrad/handbooks/handbook>. Violation of these standards will not be condoned. **Please pay careful attention to the penalties described for collaborating on individual projects, described on page 3.**

EXAMS: There will be three non-cumulative exams. Each exam will contain 27 multiple choice and 5 ‘super multiple choice’ questions. (Super multiple choice will be explained in class.) Correctly answering a question of either type earns you 2 points, and some multiple choice questions on each exam will also have 1 point “partial credit” answers. Partial credit answers are choices that are wrong, but were obtained by making an identifiable mistake and thus earn you half credit for the remainder of your effort.

Please remember that all exams are non-cumulative and all exams are “outside” class times. Here is some vital information:

- Exam One will be administered on **Friday, September 27th**. This is a closed book / closed note exam. This exam will be held from **6:00 PM to 7:50 PM**.
- Exam Two will be administered on **Friday, November 1st**. This is a closed book / closed note exam. This exam will be held from **6:00 PM to 7:50 PM**.
- Exam Three will be administered on **Tuesday, December 10th**. This is a closed book / closed note exam. This exam will be held from **7:15 PM to 9:05 PM**.

ALTERNATE EXAMS: If you have a conflict with the evening exams on September 27th or November 1st, you have the option of taking the exam at 6:00 AM on those same dates. You will, however, need to email Mr. Sung Jin in advance of that date to sign up for the 6:00 AM session. If you do not do so, it is assumed that you will be taking the exam in the evening.

If you require classroom or testing accommodations due to a disability, please contact Accessibility Resources, located at 25 Capen Hall. Accessibility Resources can be reached by phone at (716) 645-2608 or by email at stu-accessibility@buffalo.edu. Please visit Prof. Simpson during office hours as early as possible, and bring your letter from Accessibility Resources outlining what accommodations are required, so that you and she may discuss a strategy for the remainder of the semester.

NO LATE EXAMS: Please note that no one may take any exam “late”. This does not happen in MGO 302. Answer keys will be posted after all official exam sessions are concluded, which signals the end of any further opportunity to take the exam in question. In the event of unavoidable misfortune, such as a death in the family or hospitalization, you should contact the professor and be prepared to provide documentation. Students suffering such documented setbacks will be assigned a different assessment framework to determine their final grade. This framework usually involves a substantial investment of effort on the student’s part, to balance the issue of fairness to the rest of the class, and this alternate assessment cannot be assigned for any cases other than documented true emergencies.

If you are sick or distracted on the exam date you are nonetheless urged to take the exam, but *contact the professor as soon as possible to discuss what impact you feel this condition may have had on your score.* Such matters are not unimportant and when formally entered into the course record, can always be considered at the *end* of the semester when awarding final grades.

PROJECTS: There will be two projects assigned in this class, *Native Sun* and *Fine Wine Rack Company*. Each project is worth 25 points, and will have a class-wide contest for extra credit points associated with it. **Native Sun will be due on October 18th and Fine Wine Rack Company will be due on November 22nd, Buffalo time. The exact time of the deadline is 5:00 PM on each of the two dates.** These projects will be web-based, as you will submit your work for feedback (and eventual grading) by logging into our “Educational Autonomation” website at:

<https://mgt2.buffalo.edu/EA>

This website will be open for browsing and use shortly after the drop-add period ends for our class. Instructions and more details will be provided with the assignments and discussed in class. Since the submission and grading processes are web-based, you do not need to be on campus on the day of the deadlines. The two projects in MGO 302 are also *competency-based* assessments, meaning that you will be given a benchmark for full credit, and you are free to submit as many times as necessary, before the deadline, to develop an answer that qualifies for full-credit. **You can also earn 2 extra points for obtaining full-credit at least 96 hours before the project deadline, or 1 extra point for obtaining full-credit at least 48 hours before the project deadline.**

Both projects are individual assignments. Students who do not honor this principle will be forced to split the 25 point credit with whomever else is claiming their work, and all bonus points associated with shared submissions are cancelled.

LATE PROJECTS: Unlike all other assessments in MGO 302, projects may be completed late for a penalty. After a project deadline has passed, any work submitted to the project web site (which remains open throughout the semester) is worth at most 80% of the credit it would have otherwise earned if submitted on-time. These submissions are worth exactly 80% of on-time credit if submitted within 48 hours of the deadline, at which point their value drops by 4% and are worth 76% of on-time credit for the next 48 hours, when this factor continues to drop by 4% for every additional 48 hours late. These penalties are steep and so everyone is encouraged to be on-time.

However, should you fail to meet a project deadline for whatever reason, “some credit is better than no credit”, and thus you are encouraged to submit it late, but as soon as possible.

EXAM QUESTION SIMULATION MODULES: There will be six Exam Question Simulation (EQS) modules (two corresponding to each exam). EQS Modules are on-line quizzes composed of six questions from previous MGO 302 exams. Each question is worth 1 point. In Buffalo, each EQS module will “appear” in the EQS module section of our UBlearns site on a Sunday afternoon and will be available for participation until the following Tuesday afternoon. **When repeating a quiz, remember that UBlearns does NOT award you your highest score, but only your *most recent* score. Furthermore, UBlearns defines your ‘most recent score’ as the quiz you *most recently opened*, which is not necessarily the quiz you most recently submitted, if you be unwise enough to keep multiple windows on the same quiz open simultaneously.** Here are the dates for each of the six modules:

- EQS Module One: available from 5 PM on Sunday, September 8th through to 5 PM on **Tuesday, September 10th**.
- EQS Module Two: available from 5 PM on Sunday, September 22nd through to 5 PM on **Tuesday, September 24th**.
- EQS Module Three: available from 5 PM on Sunday, October 6th through to 5 PM on **Tuesday, October 8th, Buffalo-time.**
- EQS Module Four: available from 5 PM on Sunday, October 27th through to 5 PM on **Tuesday, October 29th**.
- EQS Module Five: available from 5 PM on Sunday, November 10th through to 5 PM on **Tuesday, November 12th, Buffalo-time.**
- EQS Module Six: available from 5 PM on Thursday, December 5th through to 5 PM on **Monday, December 9th, Buffalo-time.** *Note: EQS Six is open longer than usual to provide some additional flexibility in preparing for exam week. Note also that it closes on a Monday, not a Tuesday.*

Once an EQS module becomes available on-line, you are invited to complete it as many times as needed to obtain full credit on the module. Be sure to leave yourself ample time before the module’s availability deadline. This gives you the option of completing this module early, if you so desire.

PRE-EQS MODULE: There is a seventh six-question on-line quiz, providing you the opportunity to earn 6 points from questions answered in the course syllabus. While these are not ‘old exam questions’ like true EQS modules, this ‘pre-EQS module’ is functionally identical to all six of the later EQS modules, so it will give you a good preview of how they work. Although standard EQS modules are open for 48 hours, the pre-EQS module will be available for five weeks, and you are welcome to complete it at any time during that interval, **starting at 5 PM on August 2nd through to 5 PM on September 6th.**

Since the pre-EQS module is functionally identical to actual EQS modules, remember that your score is the result of the last version of the quiz that you launched, regardless of your scores on

previous attempts. Like EQS modules, you are free to attempt the pre-EQS module as many times as you desire. The pre-EQS module is open for an unusually long amount of time when compared to actual EQS's, to allow people who add MGO 302 on the last day of 'adding' a fair chance to earn those points.

COURSE GRADE: Your course grade for MGO 302 is determined by adding three exam scores, two project scores, one pre-EQS score and six EQS module scores. This is assumed to be a maximum of $(64*3) + (25*2) + (7*6) = 284$ points. A finalized grade scale will be announced by mid-semester. On that scale, the cut-off for an A will be a total of 255 points earned, the cut-off for an A- will be 250 points, the cut-off for a B+ will be 245 points, and the cut-off for a B will be 228 points. The complete scale will be announced after Exam Two.

BONUS POINTS: In reality, it is possible to collect more than 284 points... for example, both projects include the opportunity to earn optional 'bonus points' and these count toward your total as well. **You cannot hurt your grade by failing to earn bonus points.** You can, however, possibly increase your grade by collecting them. **MGO 302 bonus points are 'public property': bonus point opportunities will always be announced publically in class and no bonus point opportunities are developed for individual students.** Please ignore the "maximum bonus points" information that UBLearn's shows you when you click on "My Grades." This is a silly feature of the display software that has absolutely no meaning in reality.

UBLEARN'S WEBSITE: After July 29th, log into the UBLearn's Blackboard system at <https://ublearns.buffalo.edu>, and you will find access to our course site. This site will be a vital component of our class, providing:

- Electronic versions of various documents you may also purchase as "hard copy", as well as supplementary downloadable material.
- Access to all your lectures, and various electronic files used during lectures.
- Access to the pre- EQS module and all your following Exam Question Simulation (EQS) Modules.
- Important administrative announcements on the homepage of the site.
- Your exam, on-line module, project and possibly bonus point scores, as they become available.

It is essential that you have access to our UBLearn's site. Even if you decide to attend all lectures "live", you should check it regularly (or monitor updates) for announcements and additional materials. Log on as soon as possible!

"EMERGENCY ACCESS" TO LECTURES: We have no reason to believe that UBLearn's and our video streaming system will not be operating perfectly throughout the semester. *However*, like any technology, both these systems have failed occasionally in the past. **First and foremost:** it is your responsibility to "stay current" with the class lectures. You should never rely on UBLearn's to be 100% available, although we all naturally expect this. **Second:** remember that all material we discuss during the lectures is also in your assigned reading, and

your textbook cannot fail to be available at a random moment. **Third and finally:** if Ublearns is malfunctioning, that does not always mean that the video lectures cannot be accessed. Note that the “webcast portal” that shows you the actual links to each class is provided by a system separate from the Ublearns servers. Thus, here is a “tip” for emergency access to Digital Access lectures: at the beginning of the semester, click through to the page that shows you the links into each of the past classes, and bookmark that page (or copy down the web-address that appears in the browser window and save that information). That menu and the video lectures themselves are not housed within the Ublearns system, so this web address is an alternate route to the lecture links.

COURSE CONTENTS AND GOALS: This course is a survey of the strategic concepts and tactical quantitative tools often used in operations management. These topics are organized into four categories that correspond to four areas of your textbook reading: **Essentials, Planning Operations, Controlling Operations** and **Action and Adaptation**. The objective of this course is to provide you with insight into the issues, models, vocabulary and numerical methods particular to operations, with attention to both the strengths and weaknesses of these devices. Each of our three exams provides the opportunity to demonstrate your acquired vocabulary and analytical abilities by completing problems similar to those we discuss in class. In contrast, your two projects will require more creative thought as you adapt our simpler classroom methodologies to two real-world problems. Our progression through this survey of operations management is described in the ‘MGO 302 Class Calendar’ that follows:

MGO 302 CLASS CALENDAR Fall 2013

Readings and Topic Schedule: Below, each topic in our class is listed next to its approximate start date, meaning that we will start that material *no earlier* than that date.

ESSENTIALS:

Approx. Date	Topic	Required Reading	Important Deadlines and Events (Stated in Buffalo-time.)	
8-27-13	Intro/ Providing Goods& Services	Chapters 1 & 2	=> <i>Pre-EQS Module opens 8/2 and closes 9/6, 5pm.</i>	
8-29-13	Providing Goods & Services			
9-3-13	Product Quality & Development	Chapter 3		
9-10-13	Product Quality & Development			
9-12-13	Forecasting	Chapter 4		=> <i>EQS Module One opens 9/8 and closes 9/10, 5pm.</i>
9-17-13	Forecasting			

PLANNING OPERATIONS:

Approx. Date	Topic	Required Reading	Important Deadlines and Events (Stated in Buffalo-time.)
9-19-13	Capacity & Waiting	Chapter 5	=> <i>EQS Module Two opens 9/22 and closes 9/24, 5pm.</i> => <i>Exam One is on 9/27</i> => <i>EQS Module Three opens 10/6 and closes 10/8, 5pm.</i>
9-24-13	Capacity & Waiting		
9-26-13	Process & Facility Selection	Chapter 6	
10-1-13	Process & Facility Selection		
10-3-13	Project Management	Chapter 7	
10-8-13	Project Management		
10-10-13	Location Planning	Chapter 8	
10-15-13	Location Planning		

CONTROLLING OPERATIONS:

Approx. Date	Topic	Required Reading	Important Deadlines and Events (Stated in Buffalo-time.)
10-17-13	Purchasing & Supply Chain Partnering	Chapter 9	=> <i>Native Sun Project Deadline is 10/18 at 5pm.</i> => <i>EQS Module Four opens 10/27 and closes 10/29, 5pm</i> => <i>Exam Two is on 11/1.</i> => <i>EQS Module Five opens 11/10 and closes 11/12, 5pm.</i>
10-22-13	Inventory Management	Chapter 10	
10-24-13	Inventory Management		
10-29-13	Aggregate & Materials Requirement Planning	Chapter 11	
10-31-13	Aggregate & Materials Requirement Planning		
11-5-13	Aggregate & Materials Requirement Planning		
11-7-13	Lean Operations	Chapter 12	
11-12-13	Lean Operations		

ACTION AND ADAPTATION:

Approx. Date	Topic	Required Reading	Important Deadlines and Events (Stated in Buffalo-time.)	
11-14-13	Quality Control	Chapter 13	=> <i>Fine Wine Rack Project Deadline is 11/22 at 5pm.</i>	
11-19-13	Quality Control			
11-21-13	Scheduling & Real-Time Operations	Chapter 14		
11-26-13	Scheduling & Real-Time Operations			
12-3-13	Incident & Disruption Management	Chapter 15		=> <i>EQS Module Six opens 12/5 and closes 12/9, 5pm.</i>
12-5-13	Incident & Disruption Management			
NOTE: Your third and last MGO 302 exam will be on December 10th at 7:15pm.				

DIGITAL ACCESS: This is a Digital Access Course. Class will be held in Jacobs 106 on Tuesdays and Thursdays, 2:00 to 3:20 pm, US Eastern Standard Time. Jacobs 106 seats about 50 people. Students who have registered directly into this “live section”, also known as Section F10, have priority seating in Jacobs 106, but there are generally several open seats at any given lecture. **Any MGO 302 student, regardless of section number, is welcome to attend one, more, or all the lectures in Jacobs 106!** Even if you access the course digitally, feel free to stop by sometime during the semester just to see what a digital capture operation looks like! Generally, Jacobs 106 can be crowded during the first two weeks of the semester, but plenty of room becomes available after that time.

As with any other Digital Access course, a link on Ulearns will become available a few hours after every MGO 302 class, which you can use to access the lecture as many times as you desire. Your first “assignment” in MGO 302 is to determine which method of digital access works best for you. Here is a hint for success in this course: when interviewed, successful students in digital access courses consistently report that they created certain *times* to access lectures each week, as if they were creating an explicit course schedule that fit their particular availability that semester. A student who downloaded the course overnight would report, “I always worked on the class after breakfast on Wednesdays and Fridays”, while a student who used a campus lab would report, “I’d go work on the class between my marketing research and sociology classes, because I was on campus anyway.” Similar to working out in a gym, the key to great results in MGO 302 is in creating a weekly schedule that fits your needs and *sticking to it*.

One powerful advantage of Digital Access is that it also enables you to adapt a lecture-based course to fit your particular learning style. For example, if you have a short attention span, block out three hours in your schedule each time you want to access a lecture. The lecture is only one hour and twenty minutes, but you view only as much as you prefer before you feel your attention wandering.

At that point, *stop the lecture* and switch to some other required activity of 302, such as textbook reading or working the suggested practice problems. When you tire of that, return to the lecture. You will find that the use of “skeleton notes” in this class enables you to stop-and-start within lectures without losing track of what you were doing. Throughout the course, the professor will introduce old exam problems the answers first. Again, stop the lecture and work the problems on your own. If you obtain those answers easily, *you can skip the explanations that follow*. If you have difficulty obtaining the correct answers, you can then restart the lecture at the point you stopped it and hear the explanations. The secret is determining *what works best for you*. Good luck and have a great semester!