

MGMT 519GA – Managing Operations
Spring, 1/18/2016 – 3/12/2016
Moravian College - Economics and Business Department
Wednesdays, 6:30-9:30pm, PPHAC101

Instructor Information:

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Blackboard: <http://blackboard.moravian.edu/>

Course Description:

This course focuses on the strategic and tactical issues associated with managing the creation and distribution of goods and services. Concepts, techniques, and tools of process and project management are emphasized. Specific topics include, among others, operations strategy, quality management, time-based competition, and supply chain management. The application of these techniques in various settings including the industrial, service, health care, and not-for-profit sectors is also examined. 3 graduate credits.

General Description:

Managing Operations focuses on the strategic and tactical issues and tools that are associated with the creation and distribution of goods and services. The course is intended to provide the student with mastery of the quantitative tools used by operations managers in two broad application areas: tools for analyzing and managing output rates, process cycle times, productivity and quality within a single facility or organization and tools for managing the flow of materials between two facilities or organizations in a supply chain configuration where demands are stochastic.

Student Learning Objectives

After completing this course the student will be able to:

Determine & optimize product & service output levels, flow rates & inventories in a single organization by:

1. Applying Little's Law to determine product and service flow rates, output rates and inventories
2. Determining optimal batch sizes & line balancing when constrained by equipment set-up times.
3. Determining customer wait times & service intervals as functions of the resources provided.
4. Apply lean, six sigma and other quality management tools.

Determine and optimize supply chain order quantities & inventories with varied reorder intervals by using:

5. The Newsvendor model to optimize order quantities & inventories with infrequent reordering
6. The Order-Up-to model to lower inventories and out of stock risks with frequent reordering.
7. Pooling of inventories and other techniques to lower supply chain risks.

Program Learning Objectives Related to this Class:

Analyzing: Develops advanced skills in organizational and financial analysis and applies these skills to process management and action.

Decision-Making: Builds multifaceted understanding of operational and project related problem solving skills with emphasis on managing information and complexity.

Required text and software:

Matching Supply with Demand: An Introduction to Operations Management by G. Cachon and C. Terwiesch, McGraw-Hill Irwin, 3rd ed., 2013

Student self-teaching responsibilities & level of effort expected in a short, blended course format

This course is being presented in a blended course format. This implies that the same amount of material normally covered in a full semester course will be covered in an abbreviated eight week schedule. The use of the blended rather than a traditional full semester format has important implications for the way learning will be conducted and the weekly hours students are expected to devote out of class to reading, study and homework assignments.

First, class time normally needed in this course to review the prior week's homework problems probably means that **there will not be enough in class time to cover all of the material students will be responsible to learn in instructor delivered lectures. THE PROBLEM GETS WORSE IF WE EXPERIENCE ONE OR MORE SNOW DAYS.** This omission of lecture coverage of some topics does not mean that uncovered topics will be dropped. Instead it implies that students will be required to take on added responsibilities to master those course's topics on their own.

To facilitate this increased "self-learning" responsibility students will be directed both to carefully read the textbook chapters assigned each week and, in addition, **to read and then to carefully study the audio enhanced versions of the lecture notes** that are provided in blackboard for the material covered by the instructor's lectures and the additional material the instructor can not cover in class due to time limitations or snow cancellations.

Second, the hours per week of effort students will be expected to invest to master the material in this course will substantially increase over the hours required in a full semester course. Normally three to four hours of out of class effort is expected for every hour in class in a full semester course. This expectation totals to approximately one hundred forty out of class plus in class hours of student effort. In the blended format this normal expectation translates to twelve to fourteen hours spent outside of class (i.e. 4-5 hours outside class per hour in class) reading the text, studying the lecture notes, doing homework problems & preparing for the midterm & final exam.

Role of math tools

Effective management of a modern organization's operations requires the considerable use of algebraic and statistical tools for forecasting, process optimization, quality management and staff performance evaluation. The metrics commonly used to rate and reward the performance of operations managers themselves invariably involves the extensive use of variables such as facility output rates, order processing times (i.e. cycle times), worker utilization and productivity, quality defects per batch or per period, customer wait times, out of stock intervals, etc. etc. **Such variables are unavoidably quantitative, and thus, so is MGMT519.**

In this course we will be learning state-of-the art methods to forecast and track such quantitative operations management performance variables. **Therefore, students who regard themselves as less comfortable with math are strongly encouraged to review basic algebra and statistics.** On line tool tutorials such as those presented in the Khan Academy website can expedite these reviews. There is also a statistics review appendix in the textbook. The ability to simplify and solve basic algebraic equations and some initial familiarity with the normal, standard normal and Poisson statistical distributions will help students considerably throughout this course.

Contacting the instructor for help and working with other students

If Students are having problems with some aspects of a topic being covered in this course please don't hesitate to reach out for help. Contact the instructor by e-mail, by phone or in person – during office hours or by appointment.

In addition a discussion thread is set up in blackboard each week so students can help **(BUT NOT COPY)** each other with the weekly homework problems. This tool is provided for students to use to collaboratively to help each other. However the usefulness of this tool will depend on the breadth of student engagement with it

Further, I have no problem with students working together in study groups to prepare their weekly homework problem answers. However, the work you submit for a grade must clearly reflect your own thoughts and communication style. Please note the warning about this in the academic honesty section below.

Grading:

Grading will be done by adding the scores earned for the following course deliverables. The usual 100 point based grade scoring will be observed (e.g. 83-86 points = B, 87-89 = B+, 90-92 = A-, etc.)

2 exams (30 points each)	60 points max
Homework assignments	40 points max

Homework assignments be graded S satisfactory (full credit if submitted before midnight of the due date and reflecting a respectable level of effort) or S-satisfactory minus (half credit if submitted up to one week after the close of class on the date the assignment is due). Homework assignments turned in two or more classes late will be graded unsatisfactory (0 points).

Students should also note that Moravian's Academic Honesty Policy regarding cheating and plagiarism, as set out in the Student Handbook, will be fully adhered to.

Other Important Information

Academic Honesty

Students are expected to comply with Moravian College's policy on academic honesty as found in the "Moravian College Comenius Center Graduate Academic Policies Handbook" when preparing assignments and reports, or taking quizzes and exams. Please make yourself familiar with that policy. If you do not have a copy of the Handbook please request one from the Comenius Ctr. Office.

Moravian's cheating and plagiarism policies will be followed for both homework assignments as well as exams. **Some students in prior 519 classes have copied each other's homework, so I will be especially on the lookout for this type of infraction.**

Attendance Policy

Attendance at the two exams is mandatory. Students missing an exam without prior notification and permission from the instructor will receive a grade of zero for that exam. .

Attendance at other classes is optional but highly recommended. MISSING ANY CLASS EXPOSES THE STUDENT TO SIGNIFICANT RISKS because the material presented in this course is cumulative in that each week's material builds upon material in the preceding weeks.

Attendance, homework formats and homework submittal instructions

ASSUMING YOU ATTEND CLASS, HOMEWORK ASSIGNMENTS ARE DUE, IN HARD COPY FORMAT, AT THE TIME THE CLASS MEETS.

Answers to homework essay questions must be typed. However, the majority of homework assignments stress practice problems which can be done in handwritten format or in EXCEL if you prefer. Most students in this class do the problem sets handwritten, but a few do prefer to use EXCEL. If you use EXCEL print out the spreadsheet(s) with your name on each sheet.

IF YOU ARE ABSENT FROM CLASS FOR ANY REASON YOUR HOMEWORK, YOUR ASSIGNMENT IS STILL DUE ON THE DUE DATE POSTED IN BLACKBOARD

IF YOU CAN'T DELIVER THE ASSIGNMENT, IN HARD COPY FORMAT, TO CLASS THE DAY IT IS DUE, LEAVE IT WITH THE RECEPTIONIST IN BENIGNA HALL BEFORE 6:30 PM, WHEN THE OFFICE CLOSSES OR FAX IT TO 610-861-1466 ON OR BEFORE THE DUE DATE.

In an emergency, if you know that you will not be attending a class, please contact me ahead of time if you need to e-mailed homework in to get it in by the due date. If you do the homework problems in hand written format you will need to scan your work into a pdf file before you can attach it to an e-mail.

Blackboard

All students must enroll for the course on Blackboard. There is no access code. All audio enhanced lecture notes, homework assignments and exam study guides will be put into the Course Information section of Blackboard, ahead of their due dates. Also, students will be notified of any class cancellations or assignment schedule revisions through Blackboard, so it should be checked prior to every class.

When there is a conflict regarding assignments posted in Blackboard and the class schedule at the end of this syllabus, Blackboard should be regarded as determinative.

Student's contact information

Students must maintain their current phone and regularly viewed e-mail contact information in blackboard. To do this click "My places" in the upper right of the browser window displaying Blackboard. Next click on personal information and then edit personal information and update your information as needed.

Students can also e-mail each other directly through blackboard by going to tools then users then e-mail selected. Students and select the e-mail address of the specific student(s) you wish to contact.

Cancelled Classes

Class may be canceled due to weather or for some other reason. I will send out an e-mail notice through the e-mail address you enter when you register for the course in Blackboard.

Copyrights

Only the copyright holder has the right to make copies of books, articles, cases, software, and other copyrighted material. Anyone else (you, the reader) must have the copyright holder's permission to make copies unless the item being copied falls under the Copyright Law's "fair use" provision or is in the public domain. You must get permission from the copyright holder to make any copies legally of any copyrighted materials.

Disabilities

Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located in the lower level of Monocacy Hall, or by calling [610-861-1401](tel:610-861-1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.

e2Campus

In the event of an emergency the system called e2Campus allows Moravian College to send text messages to the cell phones of registered members of the campus community with information about what is happening and/or what precautions should be taken. Up to two cell phone numbers and two e-mail addresses per user may be registered. This service is an integral part of the College's emergency response system. If you are not already registered on the system, please do so as soon as possible. To register for e2Campus visit [Http://intranet.moravian.edu/e2campus/index.asp](http://intranet.moravian.edu/e2campus/index.asp) from a computer on Moravian's campus.

Expectations of Students

As a matter of courtesy and professionalism, students are expected to make every effort to be on time for class and to participate in a manner appropriate for mature adults. **CLASSES WILL GENERALLY START ON TIME** so late arrivals will be expected to catch up with the discussion on their own, without disrupting other students.

Students are allowed to bring non-alcoholic beverages to class as long as they clean up and dispose of their cups, bottles and cans after class ends. **FOOD CONSUMPTION IN CLASS WILL NOT BE ALLOWED** to avoid burdening other students with the noise and odor disruptions that in class eating frequently entails.

ALSO, NO TEXTING, CELL PHONING, FACEBOOKING or similar activities will be permitted in the class room area. Offenders will be asked to leave the room and take the rest of the evening off, incurring a full class cut penalty.

On the other hand, **IF YOU NEED TO BE REACHABLE** from work or from home during class you are encouraged to take whatever phone call or respond to whatever text message you need to by simply leaving the class room area after your cell phone rings, if and as often as you need to, and then return to class when your outside communication is concluded.

Grading Judgment

It is within the purview of the instructor to apply qualitative judgment in determining grades for an assignment or for a course.

Inclement Weather

In the case of inclement weather, the instructor will post a message on Blackboard to inform students if the class is canceled. It is the student's responsibility to check Blackboard prior to each class period for cancellations due to inclement weather.

Syllabus Status

This syllabus and the course contents are subject to change at the discretion of the instructor. Generally changes will be finalized only after discussion of the change with students in the class.

Workload

Students can expect to work at least four hours on average outside of class in reading, preparation and homework assignments for each hour of class time. **THIS MEANS 15-18 HOURS PER WEEK TOTAL OUTSIDE CLASS**

Style guide

Homework problems can be hand written and figures freehand drawn. Essay question responses must be typed.

Inclusion

Moravian College is a welcoming community that embraces and values the diversity of all members of the campus community. We acknowledge the uniqueness of all individuals, and we seek to cultivate an environment that respects, affirms, and defends the dignity of each member of the community. Moravian College complies with all federal and state laws regarding nondiscrimination in recruitment, admission, and employment of students, faculty, and staff.

You may wonder what that statement means. For the purposes of this class, the statement means that all persons, regardless of actual or perceived race, color, sex, religion, ancestry, genetic information, national origin, sexual orientation, gender identity or expression, familial status, marital status, age, mental or physical disability, use of guide or support animals and/or mechanical aids have an equal opportunity to participate and learn in this class and are to be treated equally in an inclusive and supportive manner.

In other words, in this class we all promote a culture of inclusion that welcomes and supports people of varying backgrounds, different viewpoints, experiences, talents, and ideas. By respecting and valuing these differences we can make problem solving and decision making multi-dimensional leading to more learning and better outcomes for all, including project clients.

Behaviors such as those listed in the table below will lead to an inclusive classroom culture.

Behavior	Description
Listening to understand	Listening with an open mind to fully understand all aspects of a situation
Seeing multiple points of view	Understanding that our perspective is not the only one when looking at a situation, issue, or person
Giving and receiving feedback	Inviting and giving feedback
Enhancing inclusion	Helping others feel included and involved
Addressing inappropriate behavior	Acknowledging inappropriate behavior; communicating expectations and consequences for repeated behavior.

Source: MIT Human Resources, Diversity & Inclusion, <http://hrweb.mit.edu/diversity/affirmative-action-plan-admins/resources>

MGMT519GA - Class agendas and schedules, Spring 2016

- 1/20 Review of chapters 1 & 2 homework
 Lecture on chapters 3, 4 & 7 part 1 (as much as class time permits)
 Homework on Chapters 3, 4, & 7 part 1, see blackboard
- 1/27 Review of chapters 3, 4 & 7 part 1 homework
 Lecture on chapters 7 part 2, 8 & 9 (as much as class time permits)
 Homework on chapters 7 part 2, 8 & 9, see blackboard
- 2/3 Review of chapters 7 part 2, 8 & 9 homework
 Lecture on chapters 10 & 11 (as much as class time permits)
 Homework on chapters 10 & 11, see blackboard
- 2/10 Review of chapters 10 & 11 homework
 Midterm study guide review
 GM Fremont
- 2/17 Midterm (Covers Chapters 1-4 & 7-11)
 Lecture on chapters 12 & 13 (as much as class time permits)
 Homework on Chapters 12 & 13, see blackboard
- 2/24 Review of chapters 12 & 13 homework
 Lecture on chapters 14,15 and 17 (as much as time permits)
 Homework on chapters 14 & 15, part 1, see blackboard
- 3/2 Final exam study guide review
- 3/9 Final exam