



Course OPRE 6302.002 – Operations Management
SYSM 6334.002 – Systems Operations Management
Professor Sonia E. Leach, Ph.D.
Term Fall 2022
Meetings Tue: 4:00 – 6:45 PM; JSOM 1.110

Professor's Contact Information

Office Location: JSOM 3.229

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Office Hours: Office hours are available throughout the week by appointment. Office hours will be carried out using MS Teams. Please email me with a requested meeting time and I will return your message within one day to confirm the meeting or propose an alternate time.

Other Information: Preferred communication is through email. As I teach several different courses, and multiple sections of some courses, please be sure to include "OPRE 6302.002" in the subject line of all email messages.

TA Information: Name, contact information and office hours are posted on eLearning.

About the Instructor: Dr. Leach began her supply chain career in 1992 as a systems acquisition/procurement officer on active duty in the United States Air Force. After overseeing the development of several software systems, she transitioned to operations analysis and conducted large-scale simulations and statistical output analysis for improved military operations in support of U.S. Congressional budget decisions. Dr. Leach then worked in supply chain compliance for supplier relations, transportation, logistics, subcontractor performance and customer service for a world-wide retail organization. Dr. Leach joined UT Dallas in 2012 upon retirement from her 20-year active duty career in the United States Air Force and now holds the position of Clinical Professor. Dr. Leach maintains relationships with several supply chain professional organizations and has actively interacted with supply chain professionals for the past ten years while directing the Industry Mentor Program for UTD MS SCM students. Her teaching expertise includes probability and statistics, operations management, global supply chain management, spreadsheet modeling and analytics, and project management. Dr. Leach has earned a BS in Mathematics from The Pennsylvania State University, a MS in Operations Research from the Air Force Institute of Technology and a Ph.D. in Industrial Engineering from Arizona State University.

General Course Information

Co-Requisite

OPRE 6301, knowledge of calculus and probability, or consent of the instructor.

Course Description

Operations Management (OM): Management of the efficient transformation of inputs into outputs to suitably satisfy customers. Inputs are materials, labor, capital and management. Outputs are products or services that customers want and pay for. The course provides an introduction to the operations and the related management concepts. The level of discussion varies from strategic to daily control of business processes.

Learning Outcomes and Expectations

Upon completion of the course, the student should be able to determine performance measures of manufacturing/service processes/systems in key operational dimensions. The student should also know what factors affect these measures, how these measures can be calculated and how these measures can be improved. More specific objectives include:

1. Describe and explain services, manufacturing, just in time, and total quality management strategies.
2. Derive and compute optimal decisions and performance measures, such as costs and profits.
3. Develop analytical thinking for operations practices.

Required Text/Material

Matching Supply with Demand: An Introduction to Operations Management (4th Edition), by Gerard Cachon and Christian Terwiesch, ISBN: 978-0-07-809665-5.

The Goal: A Process of Ongoing Improvement (3rd Edition), by Eliyahu M. Goldratt and Jeff Cox, ISBN: 978-0884271956.

The book *The Goal* has been chosen as a reading to accompany your textbook. This is a self-paced reading to be completed prior to week 12 of the Course Calendar below. This book is a relatively quick read, but you may want to read the book more than once. *The Goal* has been a perennial bestselling business book since its first publication in 1984. While there have been numerous business books written since *The Goal* was first published, it remains the preeminent book on the specific impact that operations management has on business success. This book is written as a novel, allowing the authors to use both personal and professional interactions and observations by the main character to demonstrate essential operations management methodologies. *The Goal* can still be found on the shelves of business executives today, and is likely one of the few business books that they've actually read cover to cover.

Textbooks and some other bookstore materials can be ordered online or purchased at the [UT Dallas Bookstore](#).

Technical Requirements

Please review the important technical requirements on the [Getting Started with eLearning](#) webpage.

You are expected to possess a confident level of computer and Internet literacy for this course. **A computer and Microsoft Excel with the Solver Add-In are required.** To activate the Solver Add-In:

- On a Window-based computer, open MS Excel, click on File, click on Options, click on Add-ins, then at the bottom of the window you will see a drop-down menu that is set on Excel Add-ins. Click on Go, put a checkmark in the box next to Solver, and click on OK. The Solver command will now be visible in the Data ribbon under the Analysis group on the far right of the toolbar.
- On an Apple/Macintosh computer, open MS Excel, click on Tools in the top menu, then click on Excel Add-Ins.... Put a checkmark in the box next to Solver and click on OK. The Solver command will now be visible in the Data ribbon on the far right of the toolbar.

Course Grading Information

Exams

Three (3) exams will be given in this course. All exams are closed book, closed notes. The exams will require you to demonstrate your understanding of the concepts presented in the associated learning Module. You will have two (2) hours to complete each exam.

Testable materials include: lecture, assigned chapter readings, supplemental readings in eLearning, and posted videos in eLearning.

A formula sheet relevant to the material being tested will be provided to you for each exam. This formula sheet is available for preview in eLearning.

You are authorized to use MS Excel, the downloaded pdf formula sheet, any calculator (but not a smartphone) and scratch paper on all exams.

All exams must be taken at the Student Success Center Testing Center in Synergy Park North Two during the designated timeframe given for each exam. You must reserve a seat for each exam at least 72 hours in advance of each exam at <http://registerblast.com/utdallas/exam>.

The value of each exam is given in the table below.

Your grade for each exam will be available in My Grades in eLearning after all students have completed the exam and the exams have been reviewed and released by your instructor. Prior to this happening, you may not see your exam listed in My Grades in eLearning – this is normal even if you have completed and submitted your exam. You will receive an emailed course announcement once the instructor has released the exams grades. Once released, your grade will be visible in My Grades in eLearning. To view your exam, click on My Grades, click on the name of the exam, then click on your score. Please note the points awarded for each question, and not just the correct/incorrect marking, as your grade may

have been overridden by the instructor during the review. Questions regarding a graded exam must be submitted by email. A response to your inquiry will be emailed and may include comments typed within the Feedback section of your exam question.

- The Module 1 Exam will be a combination of multiple-choice, true-false and/or problem solving.
- The Module 2 Exam will be a combination of multiple-choice, true-false and/or problem solving. It will be assumed that the student has cumulative knowledge from Module 1 material.
- The Module 3 Exam will be a combination of multiple-choice, true-false and problem solving. It will be assumed that the student has cumulative knowledge from Module 1 and Module 2 material.

Quiz

One quiz will require you to demonstrate your comprehension of the concepts related to you in the required Goldratt book, *The Goal*. This quiz will be open book/open notes and administered through eLearning. The quiz consists of 10 multiple choice and true/false questions, each question worth 10 points. You will have 30 minutes to complete this quiz. Please see the Course Calendar for the date and time of this quiz.

Group Project/Paper

There will be one group project/paper in this course worth 10% of your course grade. Your groups will be randomly assigned and will not be changed based on student preference. The groups will be tentatively set at the beginning of the course, but will not be finalized until after Census Day, which is approximately three weeks into the semester. The details of the group project/paper are available in eLearning. The due date of the group project/paper is listed in eLearning and in the Course Calendar presented below.

Rescheduled Exams

A reschedule exam will be provided to any student who has a conflict with a scheduled exam. Please contact the instructor via email as soon as you are able prior to the scheduled exam data to arrange for a rescheduled exam.

Make-up Exams

Multiple opportunities to take the same exam in an attempt to earn a better grade are not allowed. Only one attempt is allowed per exam. **Make-up examinations will NOT be offered for this course.**

Additional Information

Extra credit will NOT be offered for this course.

Late work will NOT be accepted.

Course Grading Information

Graded Component	% Contribution
Assignments (5% each)	15%
Module 1 Exam	20%
Module 2 Exam	20%
Module 3 Exam	25%
“The Goal” Quiz	10%
Group Project	10%
Total:	100%

Letter Grades

Weighted Average	Course Letter Grade
≥ 93	A
90 – 92.9	A-
87 – 89.9	B+
83 – 86.9	B
80 – 82.9	B-
77 – 79.9	C+
70 – 76.9	C
< 70	F

A C grade is the lowest passing grade in a graduate-level course. Undergraduates taking this graduate course will be subject to the same grading policy as graduate students.

Accessing Grades

Students can check their grades by clicking My Grades under Course Tools after the grade for each assessment task is released.

eLearning Course Resources

Most everything you need for the course has been posted to eLearning, such as:

- Lecture Powerpoint slides (in .pptx and .pdf format)
 - List of recommended practice problems for each lesson
 - Solutions for all textbook problems
 - Formula sheet for each learning module exam
 - Supplemental readings and videos for each lesson
 - Sample exam questions and solutions
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Course Schedule

The following is a **tentative schedule** which will be followed as closely as possible. However, should changes become necessary, they will be announced in class. It is **your responsibility** to keep track of changes announced in class and/or posted on eLearning.

WEEK #	DATE	LECTURE TOPIC/ASSIGNMENTS/EXAMS
Week 1	Tue, Aug 23	Course Overview and Syllabus Review Module 1 – Introduction
Week 2	Tue, Aug 30	Module 1 – The Process View of the Organization
Week 3	Tue, Sep 6	Module 1 – Process Capacity Assignment #1 Due – Sunday, Sep 11 Midnight
Week 4	Tue, Sep 13	Module 1 – Labor Costs Module 1 – Operations and Finance
Week 5	Tue, Sep 20	Module 1 Exam
Week 6	Tue, Sep 27	Module 2 – Batching
Week 7	Tue, Oct 4	Module 2 – Quality and Statistical Process Control
Week 8	Tue, Oct 11	Module 2 – Lean and the Toyota Production System Assignment #2 Due – Sunday, Oct 16 Midnight
Week 9	Tue, Oct 18	Module 2 – Waiting Time Module 2 – Throughput Losses
Week 10	Tue, Oct 25	Module 2 Exam
Week 11	Tue, Nov 1	Module 3 – Project Management
Week 12	Tue, Nov 8	Module 3 – Linear Programming The Goal video lecture (Viewed on eLearning) “The Goal” Quiz – 30 Minutes Sunday, 11/13, 9AM – Midnight
Week 13	Tue, Nov 15	Module 3 – Newsvendor Model and Mismatch Cost Assignment #3 Due – Sunday, Nov 20 Midnight
Week 14	Tue, Nov 22	FALL BREAK – NO CLASS LECTURE
Week 15	Tue, Nov 29	Module 3 – Order-up-to Model Group Project Assignment Due – Sunday, Dec 4 Midnight
Week 16	Tue, Dec 6	Module 3 Exam

Accessibility Accommodations

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at studentaccess@utdallas.edu.

Academic Integrity

The faculty and administration of the School of Management expect from our students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. We want to establish a reputation for the honorable behavior of our graduates, which extends throughout their careers. Both your individual reputation and the school's reputation matter to your success.

The Judicial Affairs website lists examples of academic dishonesty. Dishonesty includes, but is not limited to cheating, plagiarism, collusion, facilitating academic dishonesty, fabrication, failure to contribute to a collaborative project and sabotage. Some of the ways students may engage in academic dishonesty are:

- ☐ Coughing and/or using visual or auditory signals in a test;
- ☐ Concealing notes on hands, caps, shoes, in pockets or the back of beverage bottle labels;
- ☐ Writing in blue books prior to an examination;
- ☐ Writing information on blackboards, desks, or keeping notes on the floor;
- ☐ Obtaining copies of an exam in advance;
- ☐ Passing information from an earlier class to a later class;
- ☐ Leaving information in the bathroom;
- ☐ Exchanging exams so that neighbors have identical test forms;
- ☐ Having a substitute take a test and providing falsified identification for the substitute;
- ☐ Fabricating data for lab assignments;
- ☐ Changing a graded paper and requesting that it be regraded;
- ☐ Failing to turn in a test or assignment and later suggesting the faculty member lost the item;
- ☐ Stealing another student's graded test and affixing one's own name on it;
- ☐ Recording two answers, one on the test form, one on the answer sheet;
- ☐ Marking an answer sheet to enable another to see the answer;
- ☐ Encircling two adjacent answers and claiming to have had the correct answer;
- ☐ Stealing an exam for someone in another section or for placement in a test file;
- ☐ Using an electronic device to store test information, or to send or receive answers for a test;
- ☐ Destroying or removing library materials to gain an academic advantage;
- ☐ Consulting assignment solutions posted on websites of previous course offerings;
- ☐ Transferring a computer file from one person's account to another;
- ☐ Transmitting posted answers for an exam to a student in a testing area via electronic device;
- ☐ Downloading text from the Internet or other sources without proper attribution;
- ☐ Citing to false references or findings in research or other academic exercises;
- ☐ Unauthorized collaborating with another person in preparing academic exercises.
- ☐ Submitting a substantial portion of the same academic work more than once without written authorization from the instructor.

<http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-Basicexamples.html>

Plagiarism

Plagiarism on written assignments, especially from the web, from portions of papers for other classes, and from any other source is unacceptable. On written assignments, this course will use the resources of turnitin.com, which searches the web for plagiarized content and is over 90% effective.

Conduct During Course Evaluations

During tests and quizzes, students in this section are not allowed to have with them any food or drinks, scratch paper, course materials, textbooks, notes, invisible ink pens, or electronic devices, including iPads, iPhones, iPods, MP3 players, earphones, radios, smart phones, cameras, calculators, multi-function timepieces, or computers. When possible, students should sit in alternating seats, face forward at all times, and remove any clothing which might conceal eye movements, reflect images of another's work, or hide course material for copying. Exam proctors will monitor any communication or signaling between students by talking, whispering, or making sounds, or by using your hands, feet, other body movements, the test paper itself or your writing implement.

Academic Dishonesty

Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:

- ☐ **Homework – Zero for the Assignment**
- ☐ **Case Write-ups – Zero for the Assignment**
- ☐ **Quizzes – Zero for the Quiz**
- ☐ **Presentations – Zero for the Assignment**
- ☐ **Group Work – Zero for the Assignment for all group members**
- ☐ **Exams – A final course grade of “F”**

These sanctions will be administered only after a student has been found officially responsible for academic dishonesty, either through waiving their right for a disciplinary hearing, or being declared responsible after a hearing administered by Judicial Affairs and the Dean of Student's Office.

In the event that the student receives a failing grade for the course for academic dishonesty, the student is not allowed to withdraw as a way of preventing the grade from being entered on their record. Where a student

receives an F in a course and chooses to take the course over to improve their grade, the original grade of F remains on their transcript, but does not count towards calculation of their GPA.

The School of Management also reserves the right to review a student's disciplinary record, on file with the Dean of Students, as one of the criteria for determining a student's eligibility for a scholarship.

Judicial Affairs Procedures

Under authority delegated by the Dean of Students, a faculty member who has reason to suspect that a student has engaged in academic dishonesty may conduct a conference with the student in compliance with the following procedures:

- (i) the student will be informed that he/she is believed to have committed an act or acts of academic dishonesty in violation of University rules;
- (ii) the student will be presented with any information in the knowledge or possession of the instructor which tends to support the allegation(s) of academic dishonesty;
- (iii) the student will be given an opportunity to present information on his/her behalf;
- (iv) after meeting with the student, the faculty member may choose not to refer the allegation if he/she determines that the allegations are not supported by the evidence; or
- (v) after meeting with the student, the faculty member may refer the allegations to the dean of students along with a referral form and all supporting documentation of the alleged violation. Under separate cover, the faculty member should forward the appropriate grade to be assessed if a student is found to be responsible for academic dishonesty;
- (vi) the faculty member may consult with the dean of students in determining the recommended grade;
- (vii) the faculty member must not impose any independent sanctions upon the student in lieu of a referral to Judicial Affairs;
- (viii) the faculty member may not impose a sanction of suspension or expulsion, but may make this recommendation in the referral documentation

If the faculty member chooses not to meet with the student and instead forwards the appropriate documentation directly to the dean of students, they should attempt to inform the student of the allegation and notify the student that the information has been forwarded to the Office of Dean of Students for investigation.

The student, pending a hearing, remains responsible for all academic exercises and syllabus requirements. The student may remain in class if the student's presence in the class does not interfere with the professor's ability to teach the class or the ability of other class members to learn. (See Section 49.07, page V-49-4 for information regarding the removal of a student from class).

Upon receipt of the referral form, class syllabus, and the supporting material/documentation from the faculty member, the dean shall proceed under the guidelines in the Handbook of Operating Procedures, Chapter 49, Subchapter C. If the respondent disputes the facts upon which the allegations are based, a fair and impartial disciplinary committee comprised of UTD faculty and students, shall hold a hearing and determine the responsibility of the student. If they find the student in violation of the code of conduct, the dean will then affirm the minimum sanction as provided in the syllabus, and share this information with the student. The dean will review the student's prior disciplinary record and assess additional sanctions where appropriate to the circumstances. The dean will inform the student and the faculty member of their decision.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.