

# OPSM 4850 LEAN SIX SIGMA

**Spring 2024, Frisco Landing Room 400 (FRLD 400)**

**Tuesdays, 2p to 4:30p**

## Instructor Contact Information

**Name:** Clinton T Purtell, Ph.D.  
**Office Location:** BLB 333  
**Phone Number:** 469-964-9753  
**Office Hours:** By Appointment through Zoom  
**Email:** Please Use Canvas Email  
**TA Contact:** To be announced via Canvas

## Communication Expectations

All course communication will be through the Canvas platform. For personal concerns or questions, please email me through Canvas email as well. When sending an email, please be sure to include the course number and section number (4850) in the subject line. Inquiries are replied to as quickly as possible, but always within 48 hours. In general, grades for reading assignments and quizzes (if any) are available immediately upon completion of the assignments. Case grades with feedback are available within a week of submission.

## Course Description

OPSM 4850 Lean Manufacturing involves the study and application of Lean Six Sigma principles. Emphasis is placed on material flow analysis, process and continuous improvement techniques, as well as employee development and empowerment as integral aspects of Lean Six Sigma. This course addresses not only Lean manufacturing and Six Sigma techniques as applied throughout production processes but also the application of Lean and Six Sigma extending upstream in coordination with suppliers. The associated integrative concepts of Lean Six Sigma provide the framework for the course.

## Course Structure

OPSM 4850 is taught in senior seminar format. Participation is key in a senior seminar. Participation will be evaluated and scored in this class. Thus, attendance and participation are a major portion of your grade. Simply reviewing the course material is not enough. You are expected to contribute your ideas to the course and back them up with external sources, views, and commentary. The course materials will be covered in approximately 16 weeks, from week 1 to week 16 of the semester. There are 11 modules to the course, as well as four case studies. Each student will make one in-class presentation on the topic of their choice. Each student will also prepare and present a PowerPoint presentation for each case study.

## Course Prerequisites or Other Restrictions

Prerequisite(s): OPSM 3830 (may be waived by the professor for the Frisco campus). Additionally, you are expected to have working knowledge of the topics covered in the first three years of a typical undergraduate business or engineering degree. This prerequisite material includes statistics, forecasting and regression. We will not address material already covered in those courses in class, but concept refreshers will be required via LinkedIn Learning. You should also have working knowledge of the internet, Canvas LMS, Microsoft Office, and Zoom; and be comfortable presenting your work in front of others.

## Course Objectives

At the conclusion of this course, the student should be able to:

1. Identify and define key terms associated with Lean/Six Sigma.
2. Describe the origins, framework and basic terminology associated with both Lean and Six Sigma.
3. Describe specific techniques associated with structured problem solving.
4. Identify and/or discuss actual or potential application of Lean and Six Sigma in various settings.
5. Pass the Six Sigma Green Belt Certification Exam
6. Learn analytical process and roles as an individual, team member, and team leader.

## Materials

There is no required textbook for the course. Case studies are assigned in the schedule below. You will access materials via the UNT Library, LinkedIn Learning, Harvard Business Review Coursepacks, and internet websites. Course materials, assignments, and other readings will be available within the Canvas portal or via links posted in Canvas or in the syllabus.

**REQUIRED-** HBR Coursepack: Please click on the link below to purchase the cases. Cost is ~\$40 for three readings and four cases (there are some optional items you may purchase).

<https://hbsp.harvard.edu/import/1128566>

**REQUIRED-** We will also utilize LinkedIn Learning (Lynda.com), provided to you at no charge via UNT. See [HTTPS://AITS.UNT.EDU/SUPPORT/LINKEDINLEARNING](https://aits.unt.edu/support/linkedinlearning) for information on how to enroll or link to LinkedIn Learning courses.

*Note: You are expected to utilize additional outside resources as you prepare you case and individual presentations.*

## Teaching Philosophy

OPSM 4850 is an in-person senior seminar focused on expanding your understanding of Lean Manufacturing. It utilizes in class discussions and presentations. All materials, readings, quizzes, and cases are provided within the Canvas shell.

The course is designed to provide you with a detailed overview of the principles of Lean and Six Sigma. Each module is self-contained. Cases are to be completed individually or in a group, as directed by the professor. You will be expected to present your case findings during class on the dates noted in the syllabus. Completing all the assignment readings in the required time window will prepare you for the class discussions and the issues you will find in the cases.

As always, please reach out to me should you have any questions or concerns regarding the course.

A typical class will follow this outline:

1. Brief review of prior class content
2. Individual Presentations
3. Case Presentations as applicable
4. Discussion of new content

Course Requirements (NOTE: THE INSTRUCTOR RESERVES THE RIGHT TO MODIFY OR ADJUST THIS SCHEDULE AT HIS SOLE DISCRETION DUE TO WEATHER OR ANY OTHER FACTOR).

Week	Dates	Chapter/Topic	Pre-Reading Assignment	Assignment
1	16-Jan	Administrative Overview Introduction to Lean Six Sigma	Course Syllabus	See Canvas for Online Assignments
2	23-Jan <b>CLASS STARTS 3PM!</b>	Quality Basics LinkedIn Learning – Six Sigma Foundations	It's Time to Rethink Continuous Improvement **	See Canvas for Online Assignments Team leaders and Contracts Class Contribution Evaluated
3	30-Jan	Statistics for Six Sigma <b>Guest Speaker: Stefano Relli, Black Belt</b>	Optional: Cartoon Guide to Statistics*	See Canvas for Online Assignments Prep for Guest Speaker (RAQ) Refresher: Skittles Game – X bar R (run chart)
4	6-Feb	Case 1	Samsung Electronics- see HBR Course Pack**	Case Presentations
5	13-Feb	Origins of Six Sigma  Six Sigma Review Intro to Define and Measure  <i>Potential Guest Speaker</i>	Optional: Six Sigma Handbook Chapter 1 (see Canvas Library)*	See Canvas Assignments Class Contribution Evaluated
6	20-Feb <b>Class Does Not Meet Live!!</b> Remote Work	Six Sigma Define  Six Sigma Measure <b>LinkedIn Green Belt Course</b>	<a href="http://www.tocinstitute.org">Review www.tocinstitute.org</a> 7 Attributes of a Control Plan* Root Cause Analysis*	Canvas Assignments <b>Complete LinkedIn Green Belt Prep Course!</b>
7	27-Feb	Six Sigma  Analyze, Improve, Control <b>Guest Speaker: Constance An, Black Belt</b>	Making Process Improvements Stick - see HBR Course Pack**	See Canvas Assignments Class Contribution Evaluated
8	5-Mar	Case 2	A Profile of Toyota's Production System - see HBR Course Pack**	Case Presentations
9	12-Mar	Spring Break - No Class!		
10	19-Mar <b>No Class- Take Green Belt Exam</b>	Six Sigma Review (see Canvas for some additional materials)		<b>Green Belt Exam due by 11:59pm Oct 18</b>
11	26-Mar	Origins of Lean Lean Models <b>Guest Speaker: Brent Eikmeyer, Ops, Production and Supply Chain SME (Private Equity)</b>	Decoding the DNA of Toyota*	See Canvas Assignments Class Contribution Evaluated
12	2-Apr	Lean: Identify Value  Lean: Map the Value Stream <b>Guest Speaker: Danny Sierra, VP Information Technology/CIO/CISO @ Nexus &amp; ProPeer</b>	Value Stream Mapping (ASQ)*	See Canvas Assignments  2nd Exam Available Nov 1 @ 12:01am
13	9-Apr	Case 3	Carestream Health Inc.: When Disruption Hits a Lean Supply Chain – HBR - Team Presentation**	Indiv Analysis– Team Case Presentations
14	16-Apr	Lean: Create Flow  Intro to Pull <b>Guest Speaker: Walt Lewis, Director of CI, Interstate Battery</b>	Hirano's 8 Conditions for Flow*	See Canvas Assignments Class Contribution Evaluated
15	23-Apr	Lean: Establish Pull;  Lean: Seek Perfection  <b>Guest Speaker: Tom David, Supply Chain and CI Executive</b>	Just in Time Overview* Want More from Lean Six Sigma?- see HBR Course Pack**	See Canvas Assignments Class Contribution Evaluated
16	30-Apr	Case 4 Presentations	Fair Park Covid-19 Mass Vaccination Site - see HBR Course Pack**	Team Case Presentations (6 Questions) 20-30 minutes presentation
17	7-May	Second attempt Green Belt Exam Due by 11:59pm, Dec 13, 2023 <b>CLASS DOES NOT MEET LIVE</b>		

*\* Links provided at end of syllabus and/or in Canvas*

## Grading

<i>Assignment</i>	<i>Percentage of Final Grade</i>
<i>Attendance and Participation (includes Readiness Quizzes)</i>	10%
<i>Online Activities</i>	5%
<i>Case 1</i>	15%
<i>Case 2</i>	15%
<i>Case 3</i>	15%
<i>Case 4 Group Presentation</i>	10%
<i>Case 4 Peer Evaluation</i>	10%
<i>Six Sigma: Green Belt Course</i>	10%
<i>Green Belt Certification Exam (Best of 2 attempts)</i>	10%
<i>Total Points Possible</i>	100%

**LETTER GRADE EQUIVALENT:** These scores already include an adjustment for ‘rounding’ to the nearest tenth.

A = [89.5% - 100%]

B = [79.5% - 89.4%]

C = [69.5% - 79.4%]

D = [59.5% - 69.4%]

F = [59.4% or below]

Grades are based on total points earned during the semester. Point totals are not rounded.

## Course Policies

### Assignment Policy

All assignments are due by 11:59pm the night before the scheduled class of the week assigned. These should be uploaded to the appropriate assignment tab in Canvas. You are expected to approach each assignment with the professionalism required in the “business” world. Poor grammar and/or presentation formats will result in point deductions. **Late assignments are not accepted without prior authorization from the instructor.**

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time-sensitive assessment activity, adjustments to the time windows may be provided

based on the situation. Notwithstanding concerns regarding system availability, if you wait until the 11:59pm deadline to upload your work (i.e. wait until the last minute), late work will not be accepted. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: [helpdesk@unt.edu](mailto:helpdesk@unt.edu) or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

### Examination Policy

You will need to score above 80% on the Green Belt Certification Exam, as well as a B or higher in the course, in order to receive your Green Belt Certification. You may take the exam during the scheduled weeks of the semester as posted in the Canvas modules.

### Attendance

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community. Please do not come to class if you have tested positive for COVID or suspect you have COVID.

### Class Participation

You are expected to be prepared for each class and participate in class discussions and presentations. This includes completing all required readings and finding additional information on the topic to be covered. In addition to the Canvas assignments, there may be opportunities to participate in the online Zoom sessions. You should plan to have both audio and video on during the class sessions. Active participation in class is required, and the amount and quality of your participation effort will affect your grade.

When we have **guest speakers**, you are *HIGHLY ENCOURAGED* to dress in business casual attire, and represent yourself professionally. Be prepared to ask questions, and “lean in” to the guest speaker opportunity. All guest speakers are highly networked, and many may be in positions to refer you, or even hire you, at some point in the future. Make a good impression! Dress professionally and SHOW UP ON TIME!

**PEER EVALUATIONS (Scored as part of your 10% of your total grade towards Peer Reviews, BUT CAN SIGNIFICANTLY IMPACT YOUR FINAL GROUP PROJECT SCORE):** (This is important because it can significantly affect your overall individual grade)

Your involvement and interaction in team activities and contribution to assignments will be evaluated by your peers using a Peer Evaluation process and following the team contract. Team member assessments will be based on, a) Your ability to foster team spirit and display initiative while working on the project, b) Your timely attendance at scheduled meetings (likely virtual meetings), c) Your participation in group discussions, and d) Your completion of assigned work and contribution to project completion (content quality and timeliness).

Peer evaluations will be completed at the end of EACH TEAM PROJECT. The peer evaluation will include the evaluation of the student’s own contribution and that of every other team member. Each student will simultaneously email their evaluation to the team lead as well as submit a copy into Canvas. The team lead will then calculate an average of the peer evaluation scores for each

category for each team member and submit a copy of the average scores into a different portal in Canvas. The average scores per team member will be used to adjust individual grades, if necessary. The collective team peer evaluations will be due **the same day** that the assignment is due. Team grades will not be posted until the peer evaluations have been submitted.

## HOW TEAM MEMBER PEER EVALUATIONS CAN AFFECT YOUR INDIVIDUAL GRADE:

If your peers award you 100% on all the evaluation metrics, you will receive the full grade for the assignment awarded to the team. However, if your peers award you a lower percentage, **that percentage is multiplied by the team grade to reflect your own grade portion for that specific team assignment.**

**Example:** Assume the team grade is 100 points. You're awarded 100% by your peers. Your grade is 100 points.

Assume the team grade is 100, but you are awarded 75% by your peers. Your grade is only 75 points

**NOTE:** Any team member may request that the instructor arbitrate team ratings. If arbitration is requested, it will only be conducted when all relevant team members are available to meet by phone or Zoom, and the decision of the instructor will be final.

**IMPORTANT:** (SUGGESTIONS FOR YOUR TEAMS) SOME TEAMS REQUIRE STRUCTURE, PLANNED MEETINGS, REGULAR COMMUNICATION AND ORGANIZATION. IN FACT, HIGH PERFORMING TEAMS IN THIS CLASS ARE THOSE WHO 1) SET REGULAR WEEKLY MEETINGS, 2) DO NOT PROCRASTINATE OR WAIT UNTIL DEADLINES TO DO WORK, 3) SET ROLES AND RESPONSIBILITIES FOR ASSIGNMENTS AND TRACK ACCOUNTABILITY OF EACH TEAM MEMBER, AND 4) GRADE EACH OTHER FAIRLY BUT CRITICALLY ON PEER REVIEW ASSESSMENTS. FINAL SCORES SHOULD NOT BE SURPRISES, AND SHOULD BE UNDERSTOOD BY THE TEAM LEAD BEFORE FINAL SUBMISSION. SET GROUND RULES AND AGREE WHAT EARNS A FULL-100 POINT PEER REVIEW, OR WHAT DOES NOT.

MANY STUDENTS WILL TRY TO AVOID CONFLICT AND GIVE ALL TEAM MEMBERS 100 POINTS ON PEER REVIEWS. THIS IS NOT ADVISED. SIMILAR TO THE REAL-WORLD, YOU ARE REINFORCING THE BEHAVIOR YOU SCORE 100 POINTS FOR AS "PERFECT BEHAVIOR." IN OTHER WORDS, IF A TEAM MEMBER DOES NOT DO THEIR WORK, IS DISRUPTIVE, OR DOES NOT HOLD THEMSELVES ACCOUNTABLE AND YOU GIVE THAT PERSON A 100 POINT RATING, YOU ARE TELLING THEM THEIR BEHAVIOR IS COMPLETELY FINE!!

**WORKING OUT PROBLEMS WITH TEAM DYNAMICS:** It is very important that you communicate openly with your teammates during the peer review process and try to resolve problems before you give someone else a lower score. These scores can **significantly** affect someone's grade, so do not take this responsibility lightly. Lower peer scores should only be given if the situation has not been resolved and further efforts need to be taken to raise awareness that changes in behavior are needed. If teams cannot work out behavioral problems

by themselves, then they should contact the instructor for a final resolution. But be aware that the instructor reserves the right to ask one or more of the team members to leave the team and be responsible for a different case study from scratch by him or herself. This is a very difficult and time-consuming path that a student will not want to pursue, so we highly suggest you learn how to maintain good and harmonious team interactions.

### Outside Readings, Videos or Podcasts

Outside readings, videos or podcasts provide different perspectives on the class topics. The readings are meant to provide a foundation for in-class discussion and to broaden the students' understanding of the topics. You are expected to use these to bring new/different insights to your individual and case presentations. A complete list of the readings, cases and recommended references are included at the end of this syllabus.

### Instructor Responsibilities and Feedback

In addition to maintaining the Canvas course site, I will also

- Post announcements as needed to clarify and update information on the course
- Answer any questions/concerns you may have about the course, assignments, due dates, etc.
- Respond to all course inquiries usually within 24 hours, but always within 48 hours.

### Late Work

I do not accept late work. No exception. Please plan your schedules accordingly.

### Syllabus Change Policy

While every attempt has been made to cover possible contingencies, the syllabus may change during the semester. If it does, an announcement will be posted noting the changes and an updated syllabus will be posted in Canvas.

### Course Materials for Remote Instruction

Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to a webcam and microphone to participate in fully remote portions of the class. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>

### Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. You will receive notification when SPOT evaluations become available for this course. Additionally, there will be a post in the Announcements on Canvas reminding you to complete the SPOT evaluation.

### Technical Requirements & Skills

#### Minimum Technology Requirements

- Internet-enabled computer with video camera/ webcam (for Zoom/Online meetings)
- Reliable internet access
- Speakers & Microphone
- Plug-ins
- Microsoft Office Suite

- [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (https://clear.unt.edu/supported-technologies/canvas/requirements)

### Computer Skills & Digital Literacy

- Using Canvas
- Using email with attachments
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs

### Rules of Engagement

- Treat your instructor and classmates with respect.
- Always use your professors' proper title: Dr. or Prof.
- Unless specifically invited, do not refer to your instructor by first name.
- Use clear and concise language. No profanity.
- Remember that all college level written communication should have correct spelling and grammar (this includes discussion boards).
- Use appropriate font styles and sizes for your presentations
- When posting online, be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.
- Be careful with personal information (both yours and other's).
- Do not send confidential information via e-mail

See these [Engagement Guidelines](https://clear.unt.edu/online-communication-tips) (https://clear.unt.edu/online-communication-tips) for more information.

### Getting Help

#### Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UIT Help Desk:** <http://www.unt.edu/helpdesk/index.htm>

**Email:** [helpdesk@unt.edu](mailto:helpdesk@unt.edu)

**Phone:** 940-565-2324

**In Person:** Sage Hall, Room 130

**Walk-In Availability:** 8am-9pm

**Telephone Availability:**

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

**Laptop Checkout:** 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (https://community.canvaslms.com/docs/DOC-10554-4212710328)

### Student Support Services

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or



its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center) (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (https://studentaffairs.unt.edu/care)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry) (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling) (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

Other student support services offered by UNT include

- [Registrar](https://registrar.unt.edu/registration) (https://registrar.unt.edu/registration)
- [Financial Aid](https://financialaid.unt.edu/) (https://financialaid.unt.edu/)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services) (https://studentaffairs.unt.edu/student-legal-services)
- [Career Center](https://studentaffairs.unt.edu/career-center) (https://studentaffairs.unt.edu/career-center)
- [Multicultural Center](https://edo.unt.edu/multicultural-center) (https://edo.unt.edu/multicultural-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [Pride Alliance](https://edo.unt.edu/pridealliance) (https://edo.unt.edu/pridealliance)
- [UNT Food Pantry](https://deanofstudents.unt.edu/resources/food-pantry) (https://deanofstudents.unt.edu/resources/food-pantry)

Academic Support Services

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources) (https://clear.unt.edu/canvas/student-resources)
- [Academic Success Center](https://success.unt.edu/asc) (https://success.unt.edu/asc)
- [UNT Libraries](https://library.unt.edu/) (https://library.unt.edu/)
- [Writing Lab](http://writingcenter.unt.edu/) (http://writingcenter.unt.edu/)
- [MathLab](https://math.unt.edu/mathlab) (https://math.unt.edu/mathlab)

## UNT Policies

### Academic Integrity Policy

The G. Brint Ryan College of Business takes academic honesty seriously. Ethics and integrity are important business values, essential to building trust and adhering to both professional and legal standards. Academic dishonesty destroys trust, damages the reputation and the value of the degree and is unacceptable.

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions from admonition (a warning) to expulsion from the University.

Some of the most common examples of academic integrity violations include plagiarism or cheating, such as unauthorized assistance on examinations, homework, research papers or case analyses. Your work must be entirely your own. When working on assignments, you should not discuss your work with others unless approved by the course instructor. Group assignments should only be discussed with members assigned to your group, and all group members may be held accountable in some way for known academic integrity violations in a group assignment.

Another example of academic dishonesty relates to improper attribution. When preparing your assignments, you must cite all outside sources in the manner requested by your instructor. Copying or using material from any source prepared by or previously submitted by others, at UNT or other institutions, or downloaded from the Internet, is plagiarism. Unless directed otherwise in an assignment, large scale “cutting and pasting” from other sources, even if properly footnoted, is not appropriate. You should synthesize this material in your own words and provide a footnote.

Your instructor will specify what materials, if any, may be used on the tests and exams. Using materials other than those permitted, talking with other individuals during the exam, individuals exchanging information about an exam when one has taken the exam and the other has not, or copying or using material from another individual’s exam is academic dishonesty and will result in a meeting to discuss academic integrity violations and potentially issue sanctions mentioned above, and may result in ineligibility for academic scholarships. The use of online assistance, such as sites commonly used for finding homework solutions, group chat, cell phones, smart watches, and similar tools during exams is not allowed for any reason unless specifically permitted. No portion of an exam may be copied or photographed without permission.

Students are expected to conduct themselves in a manner consistent with the University's status as an institution of higher education. A student is responsible for responding to a request to discuss suspected academic dishonesty when issued by an instructor or other University official. If a student fails to respond after a proper attempt at notification has been made, the University may take appropriate academic actions in the absence of the student’s participation.

### **USE OF GENERATIVE AI IS PROHIBITED IN THIS CLASS!**

Students are prohibited from using any generative AI tools such as ChatGPT, Bing AI, or Bard when completing course assignments, **ESPECIALLY ON CLASS ASSIGNMENTS/DELIVERABLES (INCLUDING POWERPOINT SLIDES)**. Use of these tools, or other similar generative AI tools, will not be tolerated, may be considered plagiarism, and could result in the student failing the course. Any incident detected will be addressed through the university’s academic integrity procedures. **TEAM LEADERS ARE**

ENCOURAGED TO SCREEN FOR THE USE OF ARTIFICIAL INTELLIGENCE-GENERATED CONTENT AND HOLD TEAM MEMBERS ACCOUNTABLE IN PEER REVIEWS.

### ADA Policy

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the [Office of Disability Access website](http://www.unt.edu/oda) at <http://www.unt.edu/oda>. You may also contact ODA by phone at (940) 565-4323.

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

### Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

### Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (<https://deanofstudents.unt.edu/conduct>) to learn more.

### Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at [my.unt.edu](https://my.unt.edu). All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (<https://it.unt.edu/eagleconnect>).

## Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 [insert administration dates] of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](mailto:no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey, they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (<http://spot.unt.edu/>) or email [spot@unt.edu](mailto:spot@unt.edu).

## Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim's compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at [SurvivorAdvocate@unt.edu](mailto:SurvivorAdvocate@unt.edu) or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at [oeo@unt.edu](mailto:oeo@unt.edu) or at (940) 565 2759.

## Important Notice for F-1 Students taking Distance Education Courses

### Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

### University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email [internationaladvising@unt.edu](mailto:internationaladvising@unt.edu)) to get clarification before the one-week deadline.

### Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (<https://policy.unt.edu/policy/07-002>).

### Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Download the UNT System Permission, Waiver and Release Form

### Transmission and Recording of Student Images in Electronically-Delivered Courses

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

## Required Reading

As a convenience, I attempted to identify publicly available materials. However, all referenced publications are the property of the authors and their respective publishers. Any access restrictions imposed by said owners are a matter between the student and the publisher, outside the purview of UNT or its instructors.

Article 1: "Decoding the DNA of the Toyota Production System." Spear & Bowen, Harvard Business Review.

[https://static1.squarespace.com/static/5356f7d5e4b0fe1121e2cb5b/t/565278a3e4b058e88fcd6f1b/1448245411007/decoding\\_dna+of+TPS.pdf](https://static1.squarespace.com/static/5356f7d5e4b0fe1121e2cb5b/t/565278a3e4b058e88fcd6f1b/1448245411007/decoding_dna+of+TPS.pdf)

or (MUST BE LOGGED INTO THE UNT LIBRARY)

<https://libproxy.library.unt.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=2216294&scope=site>

- Article 2: "Value Stream Mapping Tutorial." <https://asq.org/quality-resources/lean/value-stream-mapping>
- Article 3: Manos, T. (2006, 06). Value stream mapping-an introduction. *Quality Progress*, 39, 64-69. (UNT Library login required)  
<https://www.proquest.com/docview/214771562?parentSessionId=wUJaggTJZqw19wfAAHtL3ViBnWvoa7%2FKBGgUrdpjM1A%3D&pq-origsite=summon&accountid=7113>
- Article 4: "Seven Attributes of a Control Plan" Forrest Breyfogle III, Quality Magazine Blog.  
<http://www.qualitymag.com/blogs/14-quality-blog/post/92190-seven-attributes-of-a-control-plan-for-lean-six-sigma-and-the-business>

Links to additional recommended articles may be found embedded in the Schedule section of the syllabus.

## Additional Case Studies

Refer to note in "Required Reading" regarding accessing materials.

- "The Anatomy of Innovation" Chet Marchwinski, September 2004.  
<https://www.lean.org/common/display/?o=793>
- "Lean Thinking Helps City of Chula Vista with Budget Crunch" Doug Bartholomew, February 2012.  
<https://www.lean.org/common/display/?o=1992>
- "Supply Chain Techniques Applied to Six Sigma Saves SeaDek Marine Products \$250,000" Dustin Emanis, August 2016

- “YMCA Upgrades Day Campus Using Six Sigma” Janet Jacobsen, January 2016.  
[https://www.leansixsigmaforgood.com/wp-content/uploads/2021/12/YMCA Upgrades Day Camps Six Sigma Jan2016.pdf](https://www.leansixsigmaforgood.com/wp-content/uploads/2021/12/YMCA_Upgrades_Day_Camps_Six_Sigma_Jan2016.pdf)
- Supplemental Case Studies (optional)
  - Planet Lean Case Studies: <http://planet-lean.com/case-studies/#start-0>
  - 6sigma.us Case Studies: <https://www.6sigma.us/resources/case-studies/>

## Recommended References

For additional insights beyond the scope of this course, I recommend the following:

Six Sigma Handbook, Fourth Edition  
Thomas Pyzdek, Paul Keller  
McGraw Hill  
ISBN: 978-0071840538

The Improvement Guide: A Practical Approach to Enhancing Organizational Performance  
Gerald Langely, et al  
Jossey Bass  
ISBN: 978-0470192412

Lean Thinking: Banish Waste and Create Wealth in your Corporation  
James P. Womack, Daniel T. Jones  
Simon & Shuster  
ISBN: 978- 0743249270

Learning to See: Value Stream Mapping to Create Value and Eliminate MUDA  
Mike Rother  
Lean Enterprise Institute  
ISBN: 978-0966784305

The Hitchhiker’s Guide to Lean  
Jamie Flinchbaugh, Andy Carlino  
Society of Manufacturing Engineers  
ISBN: 978-0872638310

The Cartoon Guide to Statistics  
Larry Gonick, Woollcott Smith  
Harper Perennial  
ISBN: 978-0062731029

Even You Can Learn Statistics  
David Levine, David Stephan  
FT Press  
ISBN: 978-0137010591

The Goal: A Process of Ongoing Improvement  
Eliyahu Goldratt  
North River Press  
ISBN: 978-0884271951