

LSCM 5830: Industrial Distribution & Logistics Analysis

Autumn 2020

Dr. M. T. Farris

Office and Hours

BLB 336A

Email: Within Canvas Only

ZOOM Office Hours: Monday and Wednesday 9 PM to 10 PM

<https://unt.zoom.us/j/98025296875>

Course Description

LSCM 5360. Accelerated Online Format. Industrial Distribution and Logistics Analysis. 3 credit hours. Application of logistics decision-making skills as they apply to inventory, transportation, and warehouse management problems; utilizing CSCMP case studies. Course stresses hands-on application of analytical tools useful in logistics; analysis of the characteristics of logistics system elements and their interrelationships within a company; developing skills to analyze technical logistics problems; and developing executive-level communications skills leading to the concise statement of problems and proposed solutions.

Grading

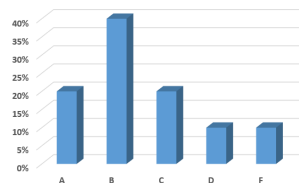
There are 1,750 total points possible for the course. Grades are based on the performance of all students officially enrolled in the course using the scale below. Students will have 24/7 access to their grade status via the Canvas grade book. Dr. Farris will also maintain an .XLS grade book. In the event of a conflict between the two grade books, the .XLS grade book will be the grade book of record.

A = Top 20% of Class

B = Top 60% of Class

C = Top 80% of Class

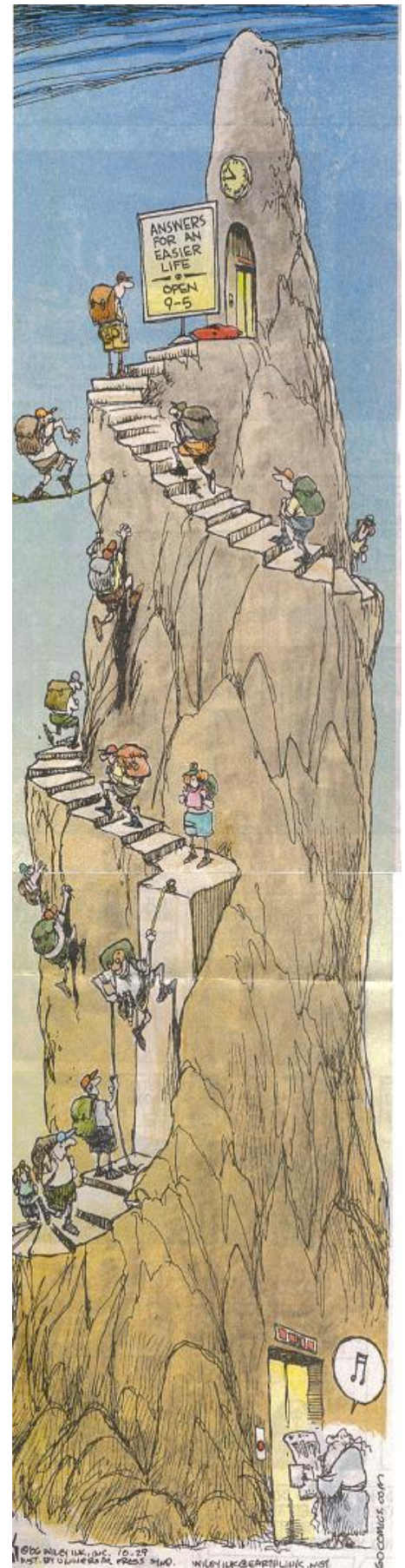
D = Top 90% of Class



The goal of this course is to develop critical thinking skills by solving applied problems. Each exercise is valued at 250 points. During each case exercise the student must separate the wheat from the chafe to resolve problems in a completed staff work form. Students are responsible for accessing and digesting the reading materials prior to asking meaningful and relevant questions in the discussion section.

In order to achieve critical thinking objectives in an applied course such as this it should come to no surprise that the grade is heavily weighted toward quantitative answers:

- **37.1% Multiple Choice** answers tend to be pretty black-and-white, are usually researchable and quite frankly are subject to correctly guessing or elimination of non-answers. Most graduates from undergraduate programs quickly learn the harsh lesson that answers are NOT typically found in textbooks. The multiple-choice questions



used in this course tend to facilitate grading and limit "researching" the answer.

- **22.6% Essay** answers tend to be subjective and MUST be complete in order to earn the full points. Emphasis is on WHY you are answering the way you are answering. No unsubstantiated conjecture please!
- **40.3% Quantitative** answers are either correct or incorrect and are most likely to be used in this course. Most solutions should be quantified to support the WHY? Does it save money? Is there a sufficient return? You will find that the exercises build on earlier answers, for example find A, then find B, now determine what A + B is to get the C.

	TOTAL	Multiple Choice	Quantitative	Essay
EOQ	250	120	85	45
Dashboard	250	0	0	250
Location	250	80	170	0
Pareto	250	180	70	0
Consort	250	0	170	80
IDC	250	230	0	20
C2C	250	40	210	0
Joiner	250	40	210	0
Points	1,750	650	705	395
		37.1%	40.3%	22.6%

Course Materials

In lieu of purchasing a traditional textbook, the articles are posted on Canvas. Additional readings may be offered throughout the course.

Late Submission of Exercises

The deadline for each case is 17:00 on Sunday. No late submissions will be accepted. Normally, feedback on all written assignments will be available within two (2) days of the due date. However, if I see that I will be unable to return your feedback that quickly I will post an Announcement to let everyone know when it can be expected. You can expect to see me participate in the discussion board after all student original posts have been posted - usually on the Friday of the first week of the module.

Course Learning Objectives

Upon successful completion of this course, you will be able to:

1. Analyze logistics system element characteristics and their interrelationships within a company.
2. Analyze technical logistics problems.
3. Develop executive-level communication skills.
4. Apply logistics decision-making to logistical barriers.

Case Study Exercises

This course utilizes cases from the case library of the Council of Supply Chain Management Professionals (CSCMP). Students are responsible for accessing and digesting the reading materials prior to asking meaningful and relevant questions in the discussion section.

For each case exercise we will typically have two sections - - a general prepare-and-ask-meaningful-question-then-solve-the-case session and a feedback session. When you open a case DO NOT CLOSE it. Everyone receives the same case but each case has different numbers. If you close your case and then re-open it, you will get a different set of numbers and lose all prior work.

Develop a spreadsheet trail: It is highly advised you create a spreadsheet. Most of the cases are designed to help you build a spreadsheet as you progress. Many times the case will contain a new piece of information or a question

forcing you to go back and re-assess an answer. Students who attempt to work out the problems on a sheet of paper will be at a disadvantage.

Is it OK to work in groups? Yes. You may choose to link with other students to work together or you may choose to complete each case alone. Each student will have identical questions but each will contain different numbers. Your study group can play an instrumental role in helping you to postulate logical questions for the concept. It is the hope of Dr. Farris that ALL students will develop critical thinking skills. Some students quickly catch on to this formula and prepare accordingly. With that said, any posting of how to solve any portion of the case will immediately be deleted and the student posting will receive an automatic zero for the case.

Graduate courses differ from undergraduate courses where you can hide in the class. Students that actively engage in Discussion section dialog with your peers about concepts and approaches tend to do much better in this class. This does not mean posting your answers but engaging in meaningful discussion about how to get there. Just like in real life there are no magic formulas that you can look up in a book – non-participants or those hoping for magic formulas will be frustrated and lost – instead, answers must be derived from decomposing the problem, solving portions, and then combining the results to get to the final solution. Dr. Farris will be holding ZOOM office hours twice a week to clarify any questions to help you resolve the problem. He will not provide solutions since that is your job, but he will try to offer guidance. Feel free to ask clarification questions but a question such as “HOW do I do this?” will receive a reply, “How do you think you should approach the problem?” Those joining the ZOOM sessions will be asked for their opinions.

The “SECRET” To This Course

Exciting and innovative things cannot happen without change. This course emphasizes change management. It takes a strategic approach to operational and tactical changes and seeks to substantiate conjecture regarding changes prior to implementation. To be successful the student must:

1. Understand the current state
2. Effectively consider the impact of change to the current state.

Some call this the “change mantra.” During the case exercise students must apply the material concepts. Stay VERY aware of due dates. The course is structured to provide ample time to complete each task however deadlines come very quickly if you do not stay up-to-date with the materials. No extensions are allowed for the projects.

OPERATING IN A COVID-19 WORLD (and UNIVERSITY LEGAL STUFF):

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

If you have CANVAS problems you should immediately report any problems to the instructor and contact the UNT Student Help Desk: 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.

UNT Policies

Academic Integrity Policy

Academic Integrity Standards and Consequences. 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 ranging from admonition to expulsion from the University. [Insert specific sanction or academic penalty for specific academic integrity violation.]

ADA Policy

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of 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 accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website \(https://disability.unt.edu/\)](https://disability.unt.edu/).

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

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. 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) 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.

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 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 or at (940) 565 2759.

Important Notice for F-1 Students taking Distance Education Courses

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) 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>).

Academic Support & Student Services

Mental Health

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>)
- [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 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/>)

KEY ACTIVITIES AND DATES

“Drink upstream from the herd”

DATE	
Week One	Introductions
Week Two	Readings for Case #1; Q & A Case #1: Silo Manufacturing Corporation: Managing through EOQ (250 points) DUE: 17:00 CDT Sunday, 30-August After 17:00 Three-person teams will be assigned for Case #2
Week Three	Exercise Feedback What Have I Gotten Into? How can I do better? Key Takeaways Case #2: Executive Dashboard 3-person Team (250 points) DUE: 17:00 CDT Sunday, 06-September
Week Four	Exercise Feedback & Key Takeaways Readings for Case #2; Q & A Case #3: Location: Optimizing Supplier-centric, Customer-centric, and Company-centric warehouse locations (250 points) DUE: 17:00 CDT Sunday, 13-September
Week Five	Exercise Feedback & Key Takeaways Readings for Case #3; Q & A Case #4: Pareto Analysis in Action (250 points) DUE: 17:00 CDT Sunday, 20-September
Week Six	Exercise Feedback & Key Takeaways Readings for Case #4; Q & A Case #5: Innovative Distribution Company - A Total Cost Approach to Understanding Supply Chain Risk (250 points) DUE: 17:00 CDT Sunday, 27-September
Week Seven	Exercise Feedback & Key Takeaways Readings for Case #5; Q & A Case #6: Consort Inc. – The Role of Freight Forwarders in the Supply Chain (250 points) DUE: 17:00 CDT Sunday, 04-October
Week Eight	Exercise Feedback & Key Takeaways Readings for Case #7; Q & A Case #7: Joiner & Sons Hardware: Exploring Multichannel Opportunities (250 points) FINAL EXAM DUE: 17:00 CDT Sunday, 11-October

Case #1: Silo Manufacturing Corporation (SMC)

Economic Order Quantity. A classic trade-off between the cost to carry inventory and the cost to order it. Time to manage it using a tried-and-true formula. Most academic treatments of EOQ focus on developing your ability to either calculate Q^* (optimum inventory) by inserting numbers into the EOQ formula; or they focus on differentiating the model to get the formula.

This exercise does neither. Instead it will focus on understanding the variables of EOQ so you can "manage" using EOQ, to identify tactical areas to emphasize improvements for lowering your inventories or even implementing JIT. It illustrates the use of economic order quantity to manage conflicting performance measures across different silo'd functions in an organization.

There are a number of readings available on the subject in the readings list. As you review all of them, make sure you concentrate on the managerial aspects of the concept. This is an exercise which builds upon itself and you can benefit from initially preparing a spreadsheet and being prepared to develop additional portions of your spreadsheet during the exercise.

Readings:

- ❖ "An Early Classic Misplaced: Ford W. Harris's Economic Order Quantity Model of 1915" Donald Erlenkotter, *Management Science*, July 89, Volume 35 Issue 7
- ❖ "Optimizing Economic Order Quantity" Dave Piasecki, *IIE Solutions*, January 2001, Volume 33, Issue 1
- ❖ "EOQ--Once More With Feeling" Robert j. Graham, *Interfaces*, November 1978, Volume 9 Issue 1
- ❖ Stock and Lambert text overview of EOQ
- ❖ Economic Order Quantity
- ❖ Coyle and Bardi text overview on EOQ

There are 20 questions in this exercise:

- 15 multiple choice = 120 points or 48% of the total grade
- 4 quantitative questions = 85 points or 34% of the total grade
- 1 short essay question = 45 points or 18% of the total grade

Case #2: Executive Dashboard

Executive dashboards have become popular. Your three-person team (assigned on Sunday, 30-August after 5 PM) will be provided a data file and use it to develop five meaningful KPIs which reflect changes over time to assist your executive in managing the business (readability, understandability, and strategic impact of which KPIs you select will be a part of the grading). Your team will create a one-slide PowerPoint slide containing these five graphics (with the data embedded behind each graphic). A second slide must be included which explains how the executive will utilize each graphic to manage the subject matter and a third slide must be included offering an alternative graphic for each KPI in the first slide.

This is a three person team-based exercise:

- All are "essay" style question = 250 points or 100% of the total grade

Case #3: Location: Optimizing Supplier-centric, Customer-centric, and Company-centric warehouse locations

The real estate professionals tout "Location, location, location!" This exercise considers the impact of location on our logistics system using a weighted average approach.

To prepare for this exercise you will need to find an Internet on-line mapping program which allows you to input longitude and latitude to determine a location. (There are at least seven free sites that could serve this purpose so you shouldn't have to buy anything).

To test your on-line mapping program the College of Business building (1307 W Highland St, Denton, TX 76201) is located at approximately 33 degrees 20 minutes 88 seconds Latitude and 97 degrees 14 minutes 99 seconds Longitude OR 33.2088589 decimal degrees Latitude and -97.1498519 decimal degrees Longitude

During the exercise you will be provided with a data file identifying the cartographical location of our suppliers and our customers and will be asked to determine where to locate our facilities.

Suggested Readings:

- ❖ "Location, Location, Logistics The three most important factors in site selection." Trunik, *Transportation & Distribution* March 2002, Volume 43 Issue 3
- ❖ "Warehouse Location Under Service-Sensitive Demand" Ho and Perl, *Journal of Business Logistics*, 1995, Volume 16, Issue 1
- ❖ The LSCM 3960 Supply Chain Management: A Logistics Perspective text by Coyle, Langley, Gibson, Novack and Bardi offers a complete example of Heuristic Modeling using the Grid Technique in Chapter 12.
- ❖ Lambert and Stock also offer an applied perspective

There are 16 questions in this exercise:

- 5 multiple choice = 80 points or 32% of the total grade
 - 11 quantitative questions = 170 points or 68% of the total grade
-

Case #4: Pareto Analysis in Action

Most students have heard of Pareto Analysis (or the 80/20 rule) and can recite the definition. This exercise takes you further into the concept by having you identify the best and worst customers, parts, or suppliers and then managing the results to higher profitability.

Most of the academic readings do little more than describe the concept and then stop. The GAME OF WORK reading (available within the course has the copyright granted by the publisher) goes a step further and tells a short story of a professional utilizing Pareto Analysis to be more effective at his job. You too will be asked to go the additional step and use a data set which will be provided during the turnaround to determine how to more effectively manage.

Readings:

- ❖ “The Quick, the Dead and the Slow Movers,” Aichlmayr, *Transportation & Distribution* February 2002, Volume 42, Issue 2
- ❖ *The Game of Work*
- ❖ “The Relative Importance of Logistics and Marketing Customer Service: A Strategic Perspective,” Emerson and Grimm, *Journal of Business Logistics*, Vol. 19, No. 1 (1998), pp. 17-32.
- ❖ “Establishing Customer Service Strategies Within the Marketing Mix,” Sterling and Lambert, *Journal of Business Logistics*, Vol. 8, No. 1 (1987), pp. 1-30.
- ❖ Say Goodbye to SLOB Slow and Obsolete Inventory
- ❖ Coyle and Bardi text overview
- ❖ Stock and Lambert text overview
- ❖ Coyle and Bardi text overview on Square Root Rule

There are 15 questions in this exercise:

- 13 multiple choice = 180 points or 72% of the total grade
 - 2 quantitative questions = 70 points or 28% of the total grade
-

Case #5: Innovative Distribution Company - A Total Cost Approach to Understanding Supply Chain Risk

Supply chain management emphasizes reducing risk as a means of reducing costs. This exercise combines the activities of international trade with a variety of risk elements. Your analysis should seek the lowest total cost (and lowest risk) comparing three supply chains – two international and one domestic. The exercise provides an opportunity to calculate economic order quantity and safety stock quantities and then combine purchase price, shipping costs, and inventory carrying costs to quantify the differences between the supply chains.

Reading:

- ❖ “Managing risk to avoid supply-chain breakdown,” *MIT Sloan Management Review*, 2004, Vol. 46, Issue 1.
- ❖ Coyle and Bardi text overview

There are 19 questions in this exercise:

- 18 multiple choice = 230 points or 92% of the total grade (mostly facilitating quantitative answers)
 - 1 short essay question = 20 points or 8% of the total grade
-

Case #6: Consort Inc. – The Role of Freight Forwarders in the Supply Chain

This exercise illustrates the concept of consolidation and how freight forwarders use it to reduce transportation costs. The student must compare a ship-direct model against vehicular consolidation, then consider temporal consolidation, investigate the differences between a freight broker and a freight forwarder, and develop a rate analysis for use in negotiation.

Readings:

- ❖ “A Survey of Freight Consolidation Practices” Jackson, *Journal of Business Logistics*, 1985, Volume 6 Issue 1
- ❖ “Reconfiguring Logistics Systems through Postponement Strategies,” Van Hoek, Cammandeur, and Vos, *Journal of Business Logistics*, Vol. 19, No. 1 (1998), pp. 33-54.
- ❖ “Supply Chain Postponement and Speculation Strategies: How to Choose the Right Strategy,” Pagh and Cooper, *Journal of Business Logistics*, Vol. 19, No. 2 (1998), pp. 13-33.
- ❖ “Operational Aspects of Inventory Consolidation Decision Making,” Evers and Beier, *Journal of Business Logistics*, Vol. 19, No. 1 (1998), pp. 173-189.

There are 12 questions in this exercise:

- 8 quantitative questions = 170 points or 68% of the total grade
 - 4 short essay questions = 80 points or 32% of the total grade
 - Your unique hard copy version will be sent to you via CANVAS Messaging. Put your answers in the answer sheet in the exercise and send it back using Messaging.
-

Case #7 FINAL EXAM Joiner & Sons Hardware: Exploring Multichannel Opportunities

The increase in the number of ecommerce-based channels and the growth of Amazon and Wal*Mart have forced bricks-and-mortar retailers to seek alternative ways to reach potential customers in a cost- and time-efficient manner. This exercise involves a regional hardware store interested in expanding sales and increasing profits by exploring multichannel opportunities leading to an omnichannel strategy.

The exercise begins at a macro level providing a background about the projected growth of the hardware store industry, the latest company Balance Sheet and Income Statement and a Pareto Analysis of inventory holdings. Delighted about strong company performance but worried by projected changes in the hardware store industry, the CEO asks about a strategy emphasizing sales growth. A new employee has recently been hired who has a compelling understanding about multichannel and omnichannel and is asked to provide an overview of the concepts. The employee offers an activity-based costing (ABC) analysis of the different activities found in the various channel opportunities.

Based on the basic overview of multichannel/omnichannel, students are asked to create a graphic flow diagram comparing the different channel prospects. They then must use the ABC information to determine the total delivered cost for A, B, and C items for each proposed channel and develop a pro forma statement reflecting how each proposed channel will financially impact Joiner & Sons Hardware. Finally, students are asked to discuss and develop a policy in the event an online order is placed and a store is out of stock, address how to handle the cost of shipping directly to a customer, and propose how to handle customer returns. Students are asked to link all recommendations to the financial impact to Joiner & Sons Hardware.

Readings:

- "Analysis of the flow of goods in new forms of multichannel sales" *Ekonomski Vjesni / Econviews*. God. XXIX, Posebno Izdanje/2016, pp. 93-104.
- "Back to the Basics in Omnichannel Retailing: Delighting Your Customers" AT Kearney, 2014.
- "On Solid Ground: Brick-and-Mortar Is the Foundation of Omnichannel Retailing" AT Kearney, 2014.
- "Where have all the on-line grocers gone?" *Journal of Transportation Management*, Volume 13, Number 1, Spring, pp. 9-18.
- "Why Do Stores Drive Online Sales? Evidence of Underlying Mechanisms from a Multichannel Retailer" *Information Systems Research*, Volume 30, Issue 1, pp. 319-338.

There are 6 questions in this exercise:

- 6 short essay questions (ranging from 30 points to 75 points) = 250 points
 - Send your report using Messaging.
-

MY TURN: MAKING THE GRADE

BY KURT WIESENFELD

Newsweek, June 17, 1996, p. 16

It was a rookie error. After 10 years I should have known better, but I went to my office the day after final grades were posted. There was a tentative knock on the door. "Professor Wiesenfeld? I took your Physics 2121 class? I flunked it? I wonder if there's anything I can do to improve my grade?" I thought: "Why are you asking me? Isn't it too late to worry about it? Do you dislike making declarative statements?"

After the student gave his tale of woe and left, the phone rang. "I got a D in your class. Is there any way you can change it to 'Incomplete'?" Then the e-mail assault began: "I'm shy about coming in to talk to you, but I'm not shy about asking for a better grade. Anyway, it's worth a try." The next day I had three phone messages from students asking me to call them. I didn't.

Time was, when you received a grade, that was it. You might groan and moan, but you accepted it as the outcome of your efforts or lack thereof (and, yes, sometimes a tough grader). In the last few years, however, some students have developed a disgruntled consumer approach. If they don't like their grade, they go to the "return" counter to trade it in for something better.

What alarms me is their indifference toward grades as an indication of personal effort and performance. Many, when pressed about why they think they deserve a better grade, admit they don't deserve one but would like one anyway. Having been raised on gold stars for effort and smiley faces for self-esteem, they've learned that they can get by without hard work and real talent if they can talk the professor into giving them a break. This attitude is beyond cynicism. There's a weird innocence to the assumption that one expects (even deserves) a better grade simply by begging for it. With that outlook, I guess I shouldn't be as flabbergasted as I was that 12 students asked me to change their grades after final grades were posted.

Many students wheedle for a degree as if it were a freebie T shirt

That's 10 percent of my class who let three months of midterms, quizzes and lab reports slide until long past remedy. My graduate student calls it hyperrational thinking: if effort and intelligence don't matter, why should deadlines? What matters is getting a better grade through an unearned bonus, the academic equivalent of a freebie T shirt or toaster giveaway. Rewards are disconnected from the quality of one's work. An act and its consequences are unrelated, random events.

Their arguments for wheedling better grades often ignore academic performance. Perhaps they feel it's not relevant. "If my grade isn't raised to a D I'll lose my scholarship." "If you don't give me a C, I'll flunk out." One sincerely overwrought student pleaded, "If I don't pass, my life is over." This is tough stuff to deal with. Apparently, I'm responsible for someone's losing a scholarship, flunking out or deciding whether life has meaning. Perhaps these students see me as a commodities broker with something they want -- a grade. Though intrinsically worthless, grades, if properly manipulated, can be traded for what has value: a degree, which means a job, which means money. The one thing college actually offers -- a chance to learn -- is considered irrelevant, even less than worthless, because of the long hours and hard work required.

In a society saturated with surface values, love of knowledge for its own sake does sound eccentric. The benefits of fame and wealth are more obvious. So is it right to blame students for reflecting the superficial values saturating our society?

Yes, of course it's right. These guys had better take themselves seriously now, because our country will be forced to take them seriously later, when the stakes are much higher. They must recognize that their attitude is not only self-destructive but socially destructive. The erosion of quality control--giving appropriate grades for actual accomplishments--is a major concern in my department. One colleague noted that a physics major could obtain a degree without ever answering a written exam question completely. How? By pulling in enough partial credit and extra credit. And by getting breaks on grades.

But what happens once she or he graduates and gets a job? That's when the misfortunes of eroding academic standards multiply. We lament that schoolchildren get "kicked upstairs" until they graduate from high school despite being illiterate and mathematically inept, but we seem unconcerned with college graduates whose less blatant deficiencies are far more harmful if their accreditation exceeds their qualifications.

Most of my students are science and engineering majors. If they're good at getting partial credit but not at getting the answer right, then the new bridge breaks or the new drug doesn't work. One finds examples here in Atlanta. Last year a light tower in the Olympic Stadium collapsed, killing a worker. It collapsed because an engineer miscalculated how much weight it could hold. A new 12-story dormitory could develop dangerous cracks due to a foundation that's uneven by more than six inches. The error resulted from incorrect data being fed into a computer. I drive past that dorm daily on my way to work, wondering if a foundation crushed under kilotons of weight is repairable or if this structure will have to be demolished. Two 10,000-pound steel beams at the new natatorium collapsed in March, crashing into the student athletic complex. (Should we give partial credit since no one was hurt?) Those are real-world consequences of errors and lack of expertise.

But the lesson is lost on the grade-grouching 10 percent. Say that you won't (not can't, but won't) change the grade they deserve to what they want, and they're frequently bewildered or angry. They don't think it's fair that they're judged according to their performance, not their desires or "potential." They don't think it's fair that they should jeopardize their scholarships or be in danger of flunking out simply because they could not or did not do their work. But it's more than fair; it's necessary to help preserve a minimum standard of quality that our society needs to maintain safety and integrity. I don't know if the 13th-hour students will learn that lesson, but I've learned mine. From now on, after final grades are posted, I'll lie low until the next quarter starts.