LSCM 4510: Logistics and Business Systems
G. Brint Ryan College of Business
University of North Texas
Fall 2019

Instructor: Suman Niranjan
(Class Number # 17704)

Days: Wednesday
Time: 6 pm to 8:50 pm
Room: Frisco Campus Room 123
Office: BLB 338B – Denton Campus; 146- Frisco Campus
Office Hours: Frisco Campus Only - Tuesday 9am to 10:30am; Wednesday 4pm to 5:30pm; and By Appointment
Phone: 940.565.3673 (Denton)
Email: E-mail preferred through Canvas Email/Message, alternatively you can reach me via UNT e-mail: suman.niranjan@unt.edu
Canvas URL: https://canvas.unt.edu/
Student Assistant: If available will post it on Canvas

CATALOG DESCRIPTION
Analysis of logistics case studies and development of issue-based problem-solving skill sets and tools. Students will develop business analysis frameworks and apply Excel-based optimization tools to assess shareholder value implications of logistics solutions.

REQUIRED COURSE MATERIAL
No required Course Textbook for this class, however it is mandatory to purchase a course case-pack from Harvard Business Publishing, which has most of the case-studies that will be used for the course. Additionally, we also have five to six cases which does not require purchase and will be available on Canvas.

Course Case Pack Details: Please use this link to go to Harvard Business Publishing and purchase the course pack: https://hbsp.harvard.edu/import/652889

Recommended Textbooks: The following textbooks are not required for this course but provide excellent references and further details for many of the concepts presented in class.


The course will emphasize on how mathematical modeling and quantitative analysis be performed for a logistics/supply chain issues using the concepts learnt in earlier courses.
Canvas: All the course content other than the Harvard business cases will be available on Canvas. A few articles and readings will require you to access UNT online library services. Students can access Canvas or UNT Library using the Internet. The site is password protected. You can learn more about Canvas by reviewing the on-line student manuals. Go to https://canvas.unt.edu/ or http://www.library.unt.edu/ and login using your EUID and AMS password.

You are expected to log in to Canvas at least once in every 24 hours. Important announcements are delivered to you via Canvas e-mail and announcements.

Class Lectures: Classroom lectures are made available prior to the class and will be posted on Canvas. You should be able to download the lecture notes which are usually in the form of a MS PowerPoint and print them off for class. The lecture notes will be extremely helpful for exam preparation.

COURSE OBJECTIVES
The discipline of supply chain management and logistics has been rapidly evolving over the last two decades. Such evolutions need students to be abreast with new analytical techniques, trends, and benchmark practices in industry. This course provides students to work on realistic scenarios where they can hone their skills and learn simultaneously via a case-based approach. For students studying LSCM 4510 course their primarily focus will be on the following aspects of learning: (1) identifying the nature of supply chain/logistics problem/issue an organization is facing, (2) brainstorming and coming up with a series of potential solutions, (3) evaluate each alternative, (4) designing implementation methods, and (5) conduct numerical analysis of the problem where applicable.

The following topics and mathematical analysis methods will be taught through the course:
- Inventory Control
- Demand Forecasting
- Risk Pooling
- Bullwhip Effect
- Capacity Planning
- Facilities Location and Flow Analysis
- Supply Chain Network Analysis
- Linear Programming using MS Excel Solver and FICO
- Omnichannel Distribution
- Strategic Outsourcing
- Queuing Theory

This course discusses several concepts of logistics and supply chain using a case-based approach. The cases selected in the course will focus on operational, strategic and tactical concepts used in manufacturing of goods and providing services in a supply chain/logistics environment. The emphasis of the course is on applying the concepts of logistics and supply chain to solve applied problems, furthermore, use mathematical programming and optimization techniques as part of implementation. At the end of the course students will be able to:
1. Analyze a logistics/supply chain problem and design strategies that will solve the issue
2. Use analytical techniques such as linear programming, forecasting methods, inventory control policies etc. to implement logistics/supply chain strategies
3. Apply theory and methods provided in courses such as operations management, introductory logistics and supply chain to the implementation of logistics/supply chain business systems
4. Understand the mathematical concepts to solve a real problem in an efficient and effective manner
5. Develop out of the box and novel thought process to solve a research problem in the area of logistics/supply chain.
6. Conduct mathematical and numerical analysis to draw managerial conclusions for logistics/supply chain issues

IMPORTANT COURSE DATES

1. October 2nd – Exam 1 – Topics 1 to 4 - refer to course schedule on page 11-12
2. November 13th – Exam 2 – Topics 5 to 8 - refer to course schedule on page 11-12
3. Homework Assignment is due every Wednesday at 6pm on Canvas except the days of exam and project presentation
4. November 27th – Final Project Report/Paper Due before class time in Canvas
5. December 3rd – Final Project Presentation due in Canvas at 11:59pm
6. December 4th – Project Presentation In-Class – No changes to presentation are allowed
7. December 11th – Final Exam – Topics 1 to 10 - refer to course schedule on page 11-12

STUDENT CONDUCT AND CLASSROOM POLICIES

1. Cheating, or other academic misconduct, will not be tolerated. **Violators will be dropped from the course and receive a grade of “F” for the semester.** Cheating includes but is not limited to looking at other students’ papers during an exam, obtaining information from a student in other sections about an exam, using unauthorized notes or help during an exam, submitting identical assignments, and claiming someone else’s work as his/her own.
2. Class members are expected to treat both the professor and other students with courtesy and respect. Violators will be asked to leave and reported to the proper authorities if necessary.
3. Students are expected to exhibit ethical conduct in performing their assignments and examinations. **All examinations are expected to be individual efforts and not group efforts.**
4. Students are expected to read, be familiar with and adhere to University regulations. **Students are expected to complete reading assignments prior to lectures and require participating actively in class to help in the learning process.**

5. Late work: Late work will earn a score of zero. There are exceptions for sickness and death in the student’s immediate family. A note from a doctor, a funeral director, etc. must document these incidents. The note should be submitted to me via e-mail within a week of the incident.

**GRADING**

**Course Evaluation:** There will be three in-class examinations including the comprehensive final. The final grade will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Examination I</td>
<td>10%</td>
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<tr>
<td>Examination II</td>
<td>15%</td>
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<tr>
<td>Examination III</td>
<td>25%</td>
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<tr>
<td>Homework</td>
<td>22%</td>
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<td>Paper Presentation</td>
<td>8%</td>
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<tr>
<td>Final Project</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</table>

(Pop-up quiz: -1% from your total final grade for each quiz with a score lower than 50%)

**Grade Distribution:**

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>89.5 - 100</td>
<td>A</td>
</tr>
<tr>
<td>79.5 to less than 89.5</td>
<td>B</td>
</tr>
<tr>
<td>69.5 to less than 79.5</td>
<td>C</td>
</tr>
<tr>
<td>59.5 to less than 69.5</td>
<td>D</td>
</tr>
<tr>
<td>&lt; 59.5</td>
<td>F</td>
</tr>
</tbody>
</table>

**COMMUNICATION WITHIN THE COURSE**

**How to reach the instructor?**
The best way to reach me is via the e-mail messages sections in Canvas. If for some reason you believe canvas is not working or you have not received a response from me after the e-mail in canvas please do not hesitate to reach me via my UNT e-mail suman.niranjan@unt.edu.

**How to get to know your classmates?**
Please get to know your classmates by talking and interacting to them. There will be an introduction page located on canvas as well, please introduce yourself. Please make sure you meet and introduce yourself with other classmates prior and after class, especially during the first two weeks. On Canvas introduction forum please include the following things: your reason for taking this course, your major, where you are from, what’s your career goal etc. I hope to know each one of you!

**How soon will you receive a response from the instructor or the student academic assistant to e-mails or to questions posed on the discussion board?**
You can expect a response within one business day, in many cases sooner than 24 hours. For questions posted on active discussion forums, expect up to two business days for response.

What is the response time on graded homework’s, assignments, project deliverables and exams?
Usually all the feedback is available within two weeks, if there is a delay in grading the instructor will keep you posted.

What student support services and academic services are available to the students?
Links to Academic Support Services, such as Office of Disability Accommodation, Counseling and Testing Services, UNT Libraries, Online Tutoring, UNT Writing Lab and Math Tutor Lab can be located within Canvas on the "Academic Support" tab.
Other resources available to you are as follows: UNT Portal: http://my.unt.edu
UNT Computing and Information Technology Center: http://citic.unt.edu/services-solutions/students
UNT Academic Resources for Students: http://www.unt.edu/academics.htm
Computer Labs: General access computer lab information can be located at: http://www.gacl.unt.edu/
CoB computer labs information is available at: http://cob.unt.edu/lab/

CHALLENGE POLICY

You have until the start of the next class to submit a written request for a regrade (known as a "challenge") after an exam or assignment has been returned to the class. To earn additional points, you must be able to convince me, in writing, that your answer is correct.

EXAMINATION

All the exams will be conducted in-class and each exam will be run for a maximum of 90 minutes (Final exam will run for 120 min) in a proctored environment. There will be three exams during the semester, exam 1 and 2 are non-cumulative, however having knowledge of topics covered in class earlier will be helpful to master the exams in the later part of the course. Exam 3 will be a final exam and will be cumulative and will test you on everything that was covered in the class, if there are any change to not include certain topics for final exam, it will be notified in the class. The exams will be a combination of multiple-choice and/or descriptive questions. Students can bring a two-page notes (front and back of a single sheet of paper) for their use in the exam 1 and 2, whereas they can bring 4 pages (2 sheets front and back) of notes for exam 3. Student notes
cannot contain example problems and solutions to problems. Students will submit their written notes along with their completed exam. Exams will test students on both concepts and problem-solving ability that were learnt during the in-class exercises as well as via case-studies that were provided as assignments.

HOMEWORK

Every week students will complete the assigned homework. Homework is typically reading a case and answering the questions in the case-study. For any innovation process teamwork and collaboration with your peers is considered essential. Working ethically and responsibly within a group at a senior/junior level of your undergraduate class is something that you should master. These case-based assignments have been created to promote group activity. At the beginning of the semester I will assign groups of minimum 2 and maximum 3 students. Please note not all homework’s are groupwork and not all homework’s are completely based on case-studies. For these reasons, you will have a mix of individual and group homework’s. The deadlines for submitting the homework is prior to class every Wednesday at 6pm via Canvas. One member in the group can submit the assignment, it is not required for all members to submit the assignment. Please make sure you put the names of all group members on your submission. Late homework’s receive a penalty of 2% reduction for every hour late. After 48 hours you will not be allowed to submit and will receive a grade of Zero.

CASE STUDIES

Most of the classroom lectures will be designed around discussion and analysis of cases assigned in this course. It is an expectation that your group (student’s) will have to read and come prepared to class, ready to answer any questions raised during the class. The course timetable (found later in the syllabus) describes which case and/or article and/or paper need to be read.

Every class you will be lectured on a topic related to the case, and a mathematical method corresponding to the problem in the case along with an in-class exercise example. This is why it is imperative that each group come prepared with reading the case as well as answers to the case-study. Assignments as part of the homework will typically be related to what you learnt in the previous class.

Three types of readings will take place in the course: case studies, articles and papers. A few case studies are available for free on Canvas, remaining cases have to be purchased from Harvard Business Publishing link that was provided earlier on page #2. However, all the articles (Journal Papers) and Papers (White Papers) should be accessible for free from Canvas.

PAPER PRESENTATION

Each group must review one academic or industry paper and prepare a 30 minutes presentation to the rest of the class. The paper should focus on the mathematical implementation of a particular logistic and/or supply chain strategy. The primary emphasis will be on the implementation that has been described in the paper. All the other students in the class should read the paper that is being
presented by the group and be ready to ask any questions they might have about the paper being presented. More details about the paper presentation, which includes selection of the paper, grading rubric, and what needs to be included in the presentation will be available on Canvas. These presentations will take place after Exam 1, please refer to timeline table at the end of the syllabus. Student group will submit the soft copy of presentation prior to class meeting time in Canvas.

FINAL PROJECT

Each student group will be assigned an applied problem (possibly a real industry problem) by the instructor at the beginning of the semester. Students will have to complete the project and provide a presentation to the class before the end of the semester. Every project might require you to conduct the following steps: acquiring & analyzing the data, developing strategies to solve the problem, mathematical modelling, and discussion of findings. Projects are considered to be very demanding and groups are advised to start working on the project from the first week of the class. There are several deliverables throughout the semester that will keep your project on track. More details will be posted on the course website in Canvas. The final project report will be submitted one week prior to the project presentation via Canvas. For the due dates and the deliverables please refer to timeline table.

POP-UP QUIZZES

Every class except the days of exam will have pop-up quiz, and typically for 5 to 10 minutes and will be based on the previous class lecture and discussion, based on a case or an article that was previously discussed in the class or from a previous homework assignment. The quiz will typically consist of one or two questions that can be answered quickly if you know the answer. If you score less than 50% on the total score for a given quiz you will be penalized with 1% reduction to your overall course grade. For example, you have 12 pop-up quizzes throughout the semester, and you score more than 50% on 8 quizzes but less than 50% on rest of them then you lose 4% on the overall course grade. However, the lowest two pop-up quizzes will be dropped, because of this there will be no make-up provided for any pop-up quizzes. If more than two quizzes are missed by a student then a valid excuse is required for a make-up, see student policy section for details.

PROFESSIONAL DEVELOPMENT

UNT - G. Brint Ryan College of Business and UNT Professional Program in Logistics provides several opportunities for professional development throughout the course of the semester. Attendance to these events are for EXTRA CREDIT only. Details are available at:

Executive Lecture Series
https://cob.unt.edu/logistics-center/executive-lecture/speakers

Onboarding Program
https://cob.unt.edu/logistics-center/onboarding-program

RSVP is mandatory to obtain credit for these events. You will need to take your student ID with you to swipe in at the beginning and swipe out at the end of the event to obtain credit.
If you do not RSVP or forget to take your student ID with you, you will NOT get points for attending the event. Additional events may be added throughout the semester.

**If you cannot attend even one of these events due to work or class schedule conflicts, contact your instructor about attending alternative events, which is subject to approval prior to attending the event.** Substitute activities include attending meetings of professional organizations, attending presentations by industry leaders, and participating in other industry/profession focused learning events. For example, attendance at LogSA or ISM meetings with a senior guest speaker, attendance at the local CSCMP Roundtable meetings, etc. may be approved in advance. If you have other activities that you believe qualify for professional development credit, please seek approval from the instructor before attending the event. Note that you will need to attend unique events for each logistics class that you are enrolled in.

*If you have any questions about the speaker series or a particular speaker event, please contact, Ms. Chris Peavy, Associate Director, Center for Logistics & Supply Chain Management; 940.369.8442
https://cob.unt.edu/logistics-center*

All sessions will be held in BLB 080 on Fridays from 12:00 noon to 1:00 p.m. The dates are as follows:

1. September 13
2. September 20
3. September 27
4. October 4
5. October 11
6. October 18
7. October 25
8. November 1
9. November 8
10. November 15
11. November 22

For Logistics Student Association (LogSA) or any other additional pre-approved events for which I receive sign-up sheets, you will be provided separate instructions. **For all other events,** you need to either submit a proof of attendance (such as the name badge, materials handed out during the event) or submit a one-paragraph write-up or have someone send an e-mail directly to the instructor confirming your attendance at the event.

**UNT COLLEGE OF BUSINESS STUDENT ETHICS STATEMENT**

As a student of the UNT College of Business, I will abide by all applicable policies of the University of North Texas, including the Student Standards of Academic Integrity, the Code of Student Conduct and Discipline and the Computer Use Policy. I understand that I am responsible reviewing the policies as provided by link below before participating in this course. I understand that I may be sanctioned for violations of any of these policies in accordance with procedures as defined in each policy.

I will not engage in any acts of academic dishonesty as defined in the Student Standards of Academic Integrity, including but not limited to using another’s thoughts or words without proper attribution (plagiarism) or using works in violation of copyright laws. I agree that all assignments I submit to the instructor and all tests I take shall be performed solely by me, except
where my instructor requires participation in a group project in which case, I will abide by the specific directives of the instructor regarding group participation.

While engaged in on-line coursework, I will respect the privacy of other students taking online courses and the integrity of the computer systems and other users’ data. I will comply with the copyright protection of licensed computer software. I will not intentionally obstruct, disrupt, or interfere with the teaching and learning that occurs on the website dedicated to this course through computer “hacking” or in any other manner.

I will not use the university information technology system in any manner that violates the UNT nondiscrimination and anti-sexual harassment policies. Further, I will not use the university information technology system to engage in verbal abuse, make threats, intimidate, harass, coerce, stalk or in any other manner which threatens or endangers the health, safety or welfare of any person. Speech protected by the First Amendment of the U.S. Constitution is not a violation of this provision, though fighting words and statements that reasonably threaten or endanger the health and safety of any person are not protected speech.

Student Standards of Academic Integrity
http://policy.unt.edu/sites/default/files/untpolicy/pdf/7-Student_Affairs-Academic_Integrity.pdf

Code of Student Conduct and Discipline

Computer Use Policy
http://policy.unt.edu/policy/3-10

AMERICANS WITH DISABILITIES ACT

The College of Business Administration complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with a disability. If you have an established disability as defined in the Act and would like to request accommodation, please see me as soon as possible. Please note: University policy requires that students notify their instructor within the first week of class than an accommodation will be needed. Please do not hesitate to contact me now or in the future if you have any questions or if I can be of assistance.

Please note if you are an International student with disability, reasonable accommodations will be made available for qualifying student on par with what’s stated above.

STUDENT PERCEPTIONS OF TEACHING

Student Perceptions of Teaching (SPOT) is the feedback is student evaluation system for UNT and is a requirement for all organized classes at UNT. I am always trying to learn from my mistakes, in a service industry you only learn via feedback. Your extremely valuable to me, I hope you will provide constructive feedback that will help me as an instructor to do better the next time I teach the same course. The survey is available through a link on my.unt.edu as well as spot.unt.edu.
EMERGENCY EVACUATION PROCEDURES FOR BUSINESS LEADERSHIP BUILDING

Severe Weather In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in rooms 055, 077, 090, and the restrooms on the basement level. In rooms 170, 155, and the restrooms on the first floor.

Bomb Threat/Fire In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact one or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to safely exit the building should move to a designated area of refuge and await assistance from emergency responders. All building occupants should immediately evacuate the building and proceed to the south side of Crumley Hall in the grassy area, west of parking lot 24.

EMERGENCY EVACUATION PROCEDURES FOR FRISCO CAMPUS-HILL PARK

Severe Weather In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in the center corridor, restrooms, or rooms 145 and 146.

Bomb Threat/Fire In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact one or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to safely exit the building should move to a designated area of refuge and await assistance from emergency responders. All building occupants should immediately evacuate the building and proceed across the street to the parking garage, lower level.
**PROPOSED CLASS SCHEDULE**  We will try to stay as close as possible to this proposed schedule, however if any changes take place, I will notify all students, this might include field trip opportunities, bringing in industry experts for guest lectures etc.

<table>
<thead>
<tr>
<th>#</th>
<th>Date (Every Wed)</th>
<th>Topic Name (T)</th>
<th>Article (A), Journal Publication (JP) and Case-Studies (CSCMP, HBR, UNT)</th>
<th>Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28-Aug-19</td>
<td>T1: Demand Forecasting - I</td>
<td>Lecture Notes on Demand Forecasting; A1: Introduction to Demand Forecasting Business Essay; C1: Dockomo Heavy Machinery-Demand Forecasting (CSCMP)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4-Sep-19</td>
<td>Demand Forecasting - II and T2: Inventory Control-I</td>
<td>Lecture Notes on Inventory Control; JP1: Short-Term Electricity Demand Forecasting; C2: Siro Manufacturing Corp (CSCMP); HW1: C1</td>
<td>HW1: C1</td>
</tr>
<tr>
<td>3</td>
<td>11-Sep-19</td>
<td>T2: Inventory Control-II</td>
<td>A2: Warehouse_DC Management; JP2: ABC Classification; C3: Innovative Distribution Company (CSCMP); HW2: C2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>18-Sep-19</td>
<td>T3: Risk Pooling and Transportation Consolidation</td>
<td>Lecture Notes on Risk Pooling; A3: Managing Risk to Avoid Supply-Chain Breakdown (HBR); C4: ConSort Inc. Utilizing Consolidation to Lower Transportation Costs (UNT Case)</td>
<td>HW3:C3</td>
</tr>
<tr>
<td>5</td>
<td>25-Sep-19</td>
<td>T4: Bullwhip Effect</td>
<td>Lecture Notes on Bullwhip Effect; C5: The Bullwhip Phenomenon in the Management of an Oil Refinery (HBR); C6: StarTech.com: Supply Chain Strategy (HBR); JP3: Quantifying the bullwhip effect in supply chains</td>
<td>HW4:C4 Research Paper Abstract and Introduction</td>
</tr>
<tr>
<td>6</td>
<td>2-Oct-19</td>
<td>Exam 1 and T5: Capacity Planning</td>
<td>Exam 1 on T1 to T4; Lecture Notes on Capacity Planning; C7: Genentech--Capacity Planning (HBR); JP4: Optimization in inventory-routing problem; JP5: Modeling and solving a sugarcane harvest front scheduling problem</td>
<td>HW5: C5</td>
</tr>
<tr>
<td>7</td>
<td>9-Oct-19</td>
<td>Capacity Planning and T6: Facilities Location</td>
<td>Lecture Notes on Facilities Location Planning; C8: Polaris Industries Inc. (HBR); A4: Logistics Capacity Management (pp 17-38) and JP6: A Scalable Algorithm for Location Distribution</td>
<td>HW6: C7 Group 1: Paper Presentation</td>
</tr>
<tr>
<td>8</td>
<td>16-Oct-19</td>
<td>T6: Facilities Location and T7: Flow Analysis</td>
<td>Lecture Notes on Flow Analysis; C9: Radiation Treatment Machine Capacity Planning at Cancer Care Ontario (HBR); C10: Bloomex.ca Logistics Optimization (HBR); A5: Outsourced Storage and Fulfillment Facility to Enhance the Service Capabilities of Shopping Mall Tenants</td>
<td>HW7: C8 Research Paper Abstract, Introduction, and Literature Review</td>
</tr>
<tr>
<td>#</td>
<td>Date (Every Wed)</td>
<td>Topic Name (T)</td>
<td>Article (A), Journal Publication (JP) and Case-Studies (CSCMP, HBR, UNT)</td>
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<tr>
<td>10</td>
<td>30-Oct-19</td>
<td>T7: Supply Chain Network Analysis</td>
<td>Lecture Notes on Flow Analysis; C12: Caterpillar Inc.: Aftermarket Parts Freight Optimization (HBR Case); A7: TBD</td>
<td>HW9: C11 Group 2: Paper Presentation</td>
</tr>
<tr>
<td>11</td>
<td>6-Nov-19</td>
<td>T8: Omnichannel Distribution</td>
<td>Lecture Notes on Omnichannel Distribution; C13: The Joiner Brothers Inc. (UNT Case); A8: The Impact of Omni-channel Fulfillment on Distribution Systems</td>
<td>HW10: C12 Research Paper Abstract, Introduction, Literature Review, Mathematical Analysis</td>
</tr>
<tr>
<td>12</td>
<td>13-Nov-19</td>
<td><strong>Exam 2</strong> and T9: Strategic Outsourcing</td>
<td><strong>Exam 2 on T5 to T8:</strong> Lecture Notes on Strategic Outsourcing; C14: Scotts Miracle-Gro: The Spreader Sourcing Decision (HBR); JP7: TBA</td>
<td>HW11: C13 Group 3: Paper Presentation</td>
</tr>
<tr>
<td>14</td>
<td>27-Nov-19</td>
<td>T10: Basics of Queuing Theory</td>
<td>Lecture Notes on Queuing Theory; A8: TBA; JP9: TBA</td>
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<tr>
<td>15</td>
<td>4-Dec-19</td>
<td>Final Project Presentations</td>
<td>Soft copy of final project presentations is due on Canvas Midnight (11:59 pm 3rd December) prior to presentations day</td>
<td>HW13: C15</td>
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<tr>
<td>16</td>
<td>11-Dec-19</td>
<td>Final Exam</td>
<td>Final Exam on T1 to T10 during class time from 6:00 pm to 8:50 pm</td>
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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.

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 hyprerational 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-grousing 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.