

Spring 2021
EMIS 3360 Operations Research
T-Th 8:00-9:15am, Caruth 379 (801) and Virtual (802)

*Use of Actual FACE MASK is REQUIRED to attend the class in person (Section 801).
Simple coverings such as Bandanas, Gaiters, etc. are NOT Acceptable forms of protection.*

Catalog Description:

A survey of deterministic models and methods of operations research in a variety of areas will be covered. Credit is not allowed for both EMIS 3360 and EMIS 8360. *Prerequisite:* EMIS 1360.

Student Learning Outcomes: *An ability to identify, formulate, and solve optimization problems for decision-making in a variety of application domains from manufacturing/production and services.*

Instructor: Halit Uster E-mail: uster@smu.edu
Caruth Hall 309 Phone: (214) 768 3575

Lab: Teaching Assistant: Siavash Tabrizian (Lab sessions) E-mail: stabrizian@smu.edu

Lab time is utilized to provide help with software and lab assignments. You must enroll in one of the lab sessions, which are Tuesday (N11) and Thursday (N12) at 2:00-3:20am in Virtual mode via Zoom. You will need to use your own computer for the labs. If you do not have a computer, please let me know and I will arrange for remote desktop connection to a lab computer.

Book:

Introduction to Operations Research, Eleventh Edition by Hillier & Lieberman, McGraw Hill, 2020. (Tenth edition is ok as we transition to the new edition this semester. I will post matching questions and/or data for tenth edition users only if needed.)

Topics:

Chapter 1 Introduction to the Origins of Operations Research
Chapter 2 OR Modeling Approach
Chapter 3 Linear Programming Models
Chapter 4 Simplex Method
Chapter 6 Duality
Chapter 9 Transportation and Assignment Problems
Chapter 10 Network Optimization
Chapter 12 Integer Programming

Virtual Office Hours: For this semester, office hours can be anytime but by appointment. This means **we just need to setup a time to meet and I will send you a zoom invite at that time.** I strongly encourage each one of you to ask any questions you might have on the material during the lecture (even if you are connected online). It is very much to your benefit to get these points cleared as soon as they occur. You are strongly encouraged to make an appointment to visit with me whenever you have problems.

Grading and Tentative Dates:

15% Exam 1 – March 9, Tuesday (Online for all)
20% Exam 2 – April 13, Tuesday (Online for all)
25% Final Exam – May 10, Monday, 8:00-11:00am (Online for all)
20% Lab Assignments
20% Cases and Projects

[93-100] A [90-93] A- [87-90] B+ [78- 87] B [75-78] B- [72-75] C+
[62- 72] C [59-62] C- [48- 59] D

If you must miss an exam, quiz, or lab assignment, then I must be notified in advance and a sufficient proof of emergency must be provided (e.g., a doctor's note). If your absence is not approved, then you receive a zero.

Online Course Management: Course materials will be posted on Canvas. These materials will include handouts, study sets, announcements (also via e-mail), grades, class notes and videos, and other materials as appropriate. Please check it regularly. Submit all lab assignments, case and project reports on Canvas. All grades will be posted on Canvas.

Software:

+ You can download the student version of AMPL from www.ampl.com. It can be found at Products → AMPL → For Students: Free demo version downloads - AMPL IDE. (If needed, we will also provide a limited-term license full version - no limitations on the number of variables and constraints - in the lab.)

+ For larger problems in a future class-project, you can utilize the online version through NEOS server (<https://neos-server.org/neos/>.) For models in Excel, a full version is available via OpenSolver (<https://opensolver.org/>.)

OTHER IMPORTANT INFORMATION

Disability Accommodations: Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit <http://www.smu.edu/Provost/SASP/DASS> to begin the process. **Once approved and registered, students will submit a DASS Accommodation Letter to faculty through the electronic portal *DASS Link* and then communicate directly with each instructor to make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.**

Religious Observance: Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence (<https://www.smu.edu/StudentAffairs/Chaplain/ReligiousHolidays>).

Excused Absences for University Extracurricular Activities: Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (See [2020-2021 SMU Undergraduate Catalog](#) under "Enrollment and Academic Records/Excused Absences.")

Student Academic Success Programs: Students needing assistance with writing assignments for SMU courses may schedule an appointment with the Writing Center through Canvas. Students wishing support with subject-specific tutoring or success strategies should contact SASP, Loyd All Sports Center, Suite 202; 214-768-3648; <https://www.smu.edu/sasp>.

Pregnant and Parenting Students: Accommodations for pregnant and parenting students: Under Title IX students who are pregnant or parenting may request academic adjustments by contacting Elsie Johnson (elsiej@smu.edu) in the Office of the Dean of Students, or by calling 214-768-4564. Students seeking assistance must schedule an appointment with their professors as early as possible, present a letter from the Office of the Dean of Students, and make appropriate arrangements. Please note that academic adjustments are not retroactive and, when feasible, require advance notice to implement.

Campus Carry Law: In accordance with Texas Senate Bill 11, also known as the “campus carry” law, following consultation with entire University community SMU determined to remain a weapons-free campus. Specifically, SMU prohibits possession of weapons (either openly or in a concealed manner) on campus. For more information, please see:
[http://www.smu.edu/BusinessFinance/Police/Weapons_Policy.](http://www.smu.edu/BusinessFinance/Police/Weapons_Policy)”

Academic Misconduct: Academic misconduct of any kind is prohibited by the SMU Student Honor Code. <https://www.smu.edu/StudentAffairs/StudentLife/StudentHandbook/HonorCode>
Please print and fill out the attached pledge form as it applies to the fall 2020 semester via email to me (uster@smu.edu) by 12:00pm on August 26, Wednesday.

Covid-19 Attendance Statement: Students who are experiencing COVID-19 symptoms or who have been notified through contact tracing of potential exposure and need to self-quarantine or isolate must follow the protocols laid out in [SMU’s Contact Tracing Protocol \(https://www.smu.edu/Coronavirus/Contact-Tracing\)](https://www.smu.edu/Coronavirus/Contact-Tracing). To ensure academic continuity, students in these situations will not be penalized and will be provided appropriate modifications to assignments, deadlines, and testing. Please also note that SMUFlex classes might, in rare circumstances, go remote for two-week periods to accommodate COVID-related issues. To ensure these necessary accommodations, affected students must:

Provide as much advance notification as possible to the instructor about a change in circumstances. Students must notify their instructor about a potential absence as well as plans for a return to class. For cases in which students test positive for COVID-19, they should fill out a [CCC form at this link \(https://cm.maxient.com/reportingform.php?SouthernMethodistUniv&layout_id=1\)](https://cm.maxient.com/reportingform.php?SouthernMethodistUniv&layout_id=1).

Communicate promptly with the instructor to establish, as necessary, alternative assignments and/or changes to deadlines and exams. Students are then responsible for meeting the expectations laid out in these alternative arrangements.

Continue participation in class via Zoom, as health circumstances permit. Attend class regularly, when not in a situation outlined above, in accordance with safety measures laid out by SMU CAN in the [Pledge to Protect](#) (including wearing masks, maintaining social distancing, and cleaning personal space after class). In-person participation in SMUFlex classes is required on students’ assigned red/blue rotation days except in cases when students are experiencing illness, are in self-quarantine or in isolation.

Students facing multiple or extended COVID-19-related absences or illness can work with the Office of the Dean of Students to consider options such as fully remote learning or medical withdrawal.

EMIS 3360 – Operations Research

Instructor: Dr. Halit Uster

PLEDGE FORM for SPRING 2021

YOUR NAME:

STUDENT NUMBER:

Please ***DUPLICATE*** in your handwriting and then sign and date ***the following pledge and the statement*** in the box provided.

“As a student of the Southern Methodist University (SMU), under SMU Honor Code and on my Honor, I affirm that I will not give or receive any unauthorized help and/or share information in any form on any exam and assignment including lab assignments, cases, and projects during the semester, and that all work will be my own.”

“I have read and signed the [Pledge to Protect](#).”



Once completed, please take its picture and email to me directly at uster@smu.edu

Keep the original for your records.