BUSA 542: Applied Decision Modeling
COURSE SYLLABUS: Summer 2023 01W

Instructor: Dr. Syed Asif Raza, PhD

Office Hours: Office hours will be posted on D2L with Zoom meeting links

Email Address: syed.raza@tamuc.edu
Phone Number: TBA
Fax Number: 903-886-5693
Preferred Form of Communication: Email.
Response Time: I will reply everyone's emails within 48 hours.
Lecture Date/Time: TBA (Web based class)
Classrooms: Online classes

Hello everyone,
Welcome to BUSA 542 Applied Decision Modeling class! To protect your academic privacy, please always send me emails from your tamuc.edu email. Please use emails to ask me questions. This is the fastest way to reach me. All learning materials such as lecture videos and presentation slides have been uploaded to myLeo Online (a.k.a, D2L). You can access to all learning materials now. ***Do NOT wait till last minute to take the exams or work on the project.***
Feel free to email me any time when you meet questions. I'm here to help!

COURSE INFORMATION

Required Textbooks

Spreadsheet Modeling and Decision Analysis: A Practical Introduction to Business Analytics (7th Edition)
by Cliff Ragsdale
ISBN: 978-1285418681
The 8th or 9th edition of the book with same title also works for this class. Used book works just fine. We do not need the access code of this book.
If you don't plan to purchase a textbook, that's fine. But make sure you study every content listed on myLeo Online (D2L).

COURSE DESCRIPTION

This is an applied course developing fundamental knowledge and skills for applying management science models to business decision making. Topics include decision analysis, simulation and risk models and optimization models, including the use of software for business applications.

Course Goals
1. Explain the purpose of optimization modeling.
2. Understand sensitivity analysis.
3. Describe goal programming.
4. Develop an ability to create technical reports for use in decision making.

College of Business Student Learning Outcomes:
1. Students will demonstrate proficiency in spoken communications by delivering clear and well-structured business presentations.
2. Students will demonstrate proficiency in written communications by creating clear and well-structured business documents.
3. Students will identify and evaluate ethical business issues.
4. Students will identify and evaluate global business challenges.
5. Students will be analytical problem solvers in business environments.

COB Student Learning Outcomes (SLOs)	Course Outcomes - After successfully completing this course, students will be able to:	Measurement Methods (Outcome Assessments)
2, 5	• Demonstrate an understanding of optimization modeling by creating and running linear programming models to solve business problems. • Demonstrate an understanding of network models. • Demonstrate skill in creating technical reports for decision analysis.	• Exam • Project

GRADING

Exams (A Maximum of 60 Points)
Three exams will be given during the semester. You can get a maximum of 20 points from each exam. Each exam will be open for one week in the online learning system. You can choose any time during the one-week period to take the online exam. Once you start the exam, you have three hours to complete the exam. You can't pause or retake the exam once it is started. The **TENTATIVE** exam dates are:
- **Exam 1** will be Tentatively open from **12 AM on June 19 to June 25.**
- **Exam 2** will be Tentatively open from **12 AM on June 26 to July 2.**
- **Exam 3** will be Tentatively open from **12 AM on July 3 to July 7**

Project (A Maximum of 40 Points)
An optimization analysis project will be given during this semester. You can get a maximum of 40 points from this project. Please note:

- The project assignments are very important to your final grade! **Please be sure to complete and submit the assignment by the deadline listed on myleo (D2L) online.**
- Early submission is highly recommended.

Final Grade
At the end of this semester, if your total point is between 90 and 100, you will get an A; if it's between 80 and 89, you will get a B, and so on. **Please note that the actual points will be used to calculate your final grade.** No percentage or curving will be used in this class.

Points	Grade
90-100	A
80-89	B
70-79	C
60-69	D
below 60	F

COMMUNICATION AND SUPPORT

If you ask me questions by emails, I will reply you in 24 hours. However, I usually answer them much faster than this.
If you have questions in software operations, please be sure to include the screenshots of the issues in the emails.
All assignment due dates, project deadlines, and exam time are central time in the United States.

TECHNOLOGY REQUIREMENTS

It is the best practice to use Firefox or Chrome to access to the online class. This is applicable to both Windows PC and Apple Mac users. Please download either one if you don't have any of these Web browsers.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy
The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette
http://www.albion.com/netiquette/corerules.html

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: Rebecca.Tuerk@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Counseling Center

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

TENTATIVE COURSE OUTLINE / CALENDAR

This is an online class. Online classes may be scheduled via Zoom. You STRONGLY encouraged attend online classes. Course dates are **6/5/2023 through 7/6/2023.**

Date	Module # on D2L	Chapter # in the textbook
Week 1(6/5/2023-6/9/2023)	Module 1 Module 2	Chapter 1: Course Introduction Chapter 2: Introduction to Linear Optimization Analysis & Linear Programming
Week 2(6/12/2023-6/16/2023)	Module 3 Module 4	Chapter 3: Modeling & Solving LP Programs in a Spreadsheet Chapter 4: Sensitivity Analysis & the Simplex Method
Week 3(6/19/2023-6/23/2023)	Module 5	Chapter 5: Network Modeling - Find the Shortest Path (Case Study: How Google Map is Designed)
Week 4(6/26/2024-6/30/2023)	Module 6 Module 7	Chapter 6: Integer Optimization Analysis Chapter 7: Goal Programming & Multiple Objective Optimization
Week 5(7/3/2023-7/7/2023)	Module 8	Chapter 8 (Optional): Non-Linear Optimization