



TMGT 444-01W DECISION THEORY

3 Credit Hours

COURSE SYLLABUS: SPRING 2026

INSTRUCTOR INFORMATION

Instructor: Angela Felton – Adjunct Faculty
Virtual Office Hours: T, R 10:00 a.m.-11:00 a.m. or by appointment
Office Phone: TBD
Office Fax:
University Email Address: angela.felton@tamuc.edu
Preferred Form of Communication: email.
Communication Response Time: within 24 hours (weekdays) to email.

COURSE INFORMATION

Textbook(s) Required
An Introduction to Decision Theory
Author: Martin Peterson
2nd Edition
Publisher: Cambridge University Press
ISBN: 978-1-316-60620-9

Course Description

Decision theory deals with methods for determining the optimal course of action when a number of alternatives are available, and their consequences cannot be forecast with certainty. This course will use quantitative methods (models) for problem solving and decision making. Theories and models to be covered include probability theory, utility theory and game theory, linear programming models, nonlinear programming models, and integer programming models.

<https://coursecatalog.tamuc.edu/search/?search=TMGT+444>

The syllabus/schedule are subject to change.

Prerequisites: TMGT 340 and TMGT 411 with a minimum of C or better and instructor approval.

Student Learning Outcomes:

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

1. Explain the major theoretical frameworks of decision theory (which include but are not limited to normative and descriptive) and be able to identify the characteristics of each type in an applied setting.
2. Be able to systematically formulate, structure and/or frame a decision problem by employing the various decision support tools introduced during the course (e.g., decision tables, matrices, utility tables, weighted decision tables, and others).
3. Be able to apply utility functions to solve expected utility & expected value problems (e.g., probability calculations, probability reward, expected value calculations, etc.).
4. Describe and be able to apply the standard representation relating to individual decisions (e.g., alternatives (options), states of nature, outcomes, etc.).
5. Describe and be able to apply the fundamentals of decision-making under uncertainty and risk.
(e.g., paradoxes of uncertainty, measures of probability, uncertainty criteria, etc.).
6. Explain the use and apply examples of Game Theory that demonstrate interaction strategies used by decision makers.
7. Be able to explain the human decision-making process (or behaviors) considering psychological decision theory (e.g., prospect theory, attribution theory, regret theory, etc.) and be able to describe the practical implications of their use.

COURSE REQUIREMENTS

General Overview of this Course of Study

This class will be conducted in an environment similar to what one would expect to find in a well-operated business. It should be the objective of each of us to carry ourselves in a professional, business-like manner. In the context of this class, which means taking responsibility for one's assignments, producing quality work, submitting it on time, communicating clearly, and acting in a civil manner.

As you are aware, this is a senior-level course. This fact alone dictates a different learning environment than what you may have experienced in other classes and will require, in some cases, a new approach to the learning process on your part. You will be expected to develop your reading, research, and writing skills to a level that you may never have experienced previously. This will require personal dedication and a desire to advance your education. Additionally, as an online class, your time management skills will be put to the test as you try to balance other courses, career, family, leisure time, and other obligations along with your responsibilities to this course. Do not fall behind in this class. **Being busy is not an excuse for turning in assignments late!**

The syllabus/schedule are subject to change.

The educational philosophy of this course. Students are the center of the learning process; therefore, you are expected to assume the responsibility for your learning—to the degree that learning is achieved. In this environment, the instructor will serve as a guide and facilitator for the student learning experience. You are expected to approach learning with purpose, commitment, dedication, seriousness, and an attitude of discovery. Accordingly, you must be self-driven by reading carefully all materials provided by the instructor, completing all course assignments in accordance with the instructions and specifications provided by the instructor, complying with assignment deadlines, and working within the assignment/course evaluation criteria.

As the student you are to be an active learner, fully engaged in all facets of the course and its content. You will be expected to proofread and assess the quality of your work **before** it has been presented to your instructor. It is critical to your success for you to comply with the writing and formatting guides associated with this course of study and for you to have a high level of understanding of these documents. Before you turn any work into the instructor, it is your responsibility to compare your written material with the requirements/specifications of the writing and formatting guides provided for this course of study and to ensure to the instructor that you have fully complied with all requirements of the assignments.

Student Responsibilities

This course will require you to read, conduct extensive research, and write at a level appropriate for a senior-level student. It is assumed that you can read and write at this level coming into the course.

- You will be expected to read and comprehend the course syllabus, e-mails, and announcements.
- You will be expected to manage your time effectively and efficiently throughout the semester.
- You will be expected to meet all deadlines and due dates. Assignments turned in late will be subject to a ten percent (10%) score reduction for each day they are late. After five (5) days, assignments will receive a grade of zero (0). This policy will be enforced strictly!
- You will be expected to participate fully in the course by checking announcements and e-mails and responding to e-mails when requested. This should be a daily habit!
- You will be expected to employ a formal business writing style and format in all your written correspondence (including e-mails).
- You will be expected to practice civility in your verbal interactions with the instructor, staff, and other students.
- You will be expected to devote at least twelve (12) clock hours to this course each week of the semester.
- E-mail will be our primary means of communication. Consequently, you will be expected to log into D2L Brightspace often to check for correspondence from your instructor.

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GRADING

Final grades in this course will be based on the following scale:

- A = 90%-100%
- B = 80%-89%
- C = 70%-79%
- D = 60%-69%
- F = 59% or Below

ASSESSMENTS

Weights of the assessments in the calculation of the final letter grade:

Weekly Quizzes	30%
Written Assignments	30%
Midterm Exam	20%
Final Exam	20%
TOTAL	100%

COURSE OUTLINE/CALENDAR

Week #	Topic	Assessment (Quizzes are due by midnight (CT), on Sunday of the week assigned.)
0	<i>Familiarize yourself with the courseware and follow the initial instructions provided in the online course. Post on-line introductions with photo for class roster. Acquire copy of text.</i>	Introduce yourself
1	Chapter 1 – <i>Introduction of decision theory to include a brief history of the concept.</i>	Quiz 1
2	Chapter 2- <i>Understanding the elements of the Decision Matrix</i>	Quiz 2
3	Chapter 3- <i>Decisions under ignorance or uncertainty</i>	Quiz 3
4	Chapter 4- <i>Decision under risk</i>	Quiz 4

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		Written Assignment #1
5	Chapter 5-Utility	Quiz 5
6	Chapter 6-The Mathematics of Probability Chapter 7-The Philosophy of Probability	Quiz 6
7	MIDTERM	Mid-term Examination
8	Chapter 8-Bayes Theorem	Quiz 7
9	SPRING BREAK	
10	Chapter 9-Casual vs Evidential Decision Theory	Quiz 8
		Written Assignment #2
11	Chapter 9-Casual vs Evidential Decision Theory	Quiz 9
12	Chapter 10-Risk Aversion	Quiz 10
13	Chapter 11-Game Theory	Quiz 11
14	Chapter 12-Game Theory	Quiz 12
15	Chapter 13-Social Choice Theory	Written Assignment #3
16		Last week of Class/Study Period
Finals		

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements.

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

STUDENT RESPONSIBILITIES FOR COURSE

CWID and Password

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu.

Technology-Related Issues

Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, an ETAMU campus open computer lab, etc.

TECHNOLOGY REQUIREMENTS AND SUPPORT

Minimal Technical Skills Needed

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Students will need reliable computer and internet access for this course. Students must be able to effectively use myLeo email, myLeo Online D2L, and Microsoft Office.

Learning Management System (LMS) – D2L

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are the technical requirements:

- View the [Learning Management System Requirements Webpage](#).
- Learn more on the [LMS Browser Support Webpage](#).

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found on the [Brightspace Support Webpage](#).

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

If you have any questions or are having difficulties with the course material, please contact your instructor. Correspondence will always be through university email (your “myLeo” mail) and announcements in myLeo online (D2L). You will not RECEIVE email through D2L, so be sure to check your ETAMU email for communication. Students are encouraged to check university email daily.

Include the Following in Emails with Instructor:

- Course name and subject in the subject line
 - Salutation (Good afternoon, Dr. Jackson)
 - Proper email etiquette (no “text” emails – use proper grammar and punctuation)
 - Student name and CWID after the body of the email (add to student signature on email)
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COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change

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.

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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 online in the [Student Guidebook](#).

Students should also consult the [Rules of Netiquette Webpage](#) for more information regarding how to interact with students in an online forum.

ETAMU Attendance

For more information about the attendance policy, please view the [Attendance Webpage](#) and the [Class Attendance Policy](#)

Academic Integrity

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

[Undergraduate Academic Dishonesty University Procedure 13.99.99.R0.03](#)

[Undergraduate Student Academic Dishonesty Form](#)

[Graduate Student Academic Dishonesty University Procedure 13.99.99.R0.10](#)

[Graduate Student Academic Dishonesty Form](#)

Use of Artificial Intelligence

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

Students with Disabilities-- ADA Statement

The syllabus/schedule are subject to change.

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 reasonable accommodation of their disabilities. If you have a disability requiring accommodation, please contact:

Office of Student Disability Resources and Services

East Texas A&M University

Velma K. Waters Library Rm 162

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

Fax (903) 468-8148

Email: studentdisabilityservices@etamu.edu

Website: [Office of Student Disability Services](#)

Nondiscrimination Notice

East Texas A&M University 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 East Texas A&M University 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 ETAMU 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.

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

East Texas A&M Supports Students' Mental Health – Counseling Services

The Counseling Center at East Texas A&M University, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students.

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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 <https://www.etamu.edu/counseling-center/>

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



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