



Learning Outcomes

A critical determinant of success for individuals and organizations is making good decisions. But why is it that we don't always make rational and logical choices? How can we improve the quality of our judgments and choices?

To address these questions, the course will review:

- Strategies for making rational choices
- Psychology of judgment and decision making, including the roles of thinking strategies known as heuristics
- Quantitative techniques for decision making, including optimization/linear programming and classification tree models

After successfully completing this course you will be able to:

- Describe the roles of quantitative data analysis and of psychology of judgment in decision making
- Apply different decision analysis and data analysis techniques that can support decision making
- Explain how psychological perspectives can modify or restrain rational decision making
- Demonstrate hands-on experience with analytical techniques and software tools that are widely used in practice

Dr. Kathy Weaver

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Class Meets

Tuesdays & Thursdays

2:00pm – 3:15pm

SQH 1119

Office Hours

SQH 1119

Tuesdays 3:15-4:00pm

OR by appointment

Prerequisites

INST 314; MATH 115;

PSYCH 100; STAT 100

Course Communication

I will send information to students via ELMS announcements.

Students must contact me via email

(keweaver@umd.edu) to discuss questions,

absences, or accommodations.

Here is a link with helpful guidance on writing

professional emails

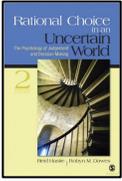
(ter.ps/email).

Required Resources

1. Course website:

elms.umd.edu

2. Text Book:



Rational Choice in an Uncertain World
2nd Edition
Reid Hastie & Robyn M. Dawes
ISBN: 978-1-4129-5903-2
(Hereafter called RC)

3. Software:

- Microsoft Excel: Macintosh users can access through UMD's TERPware website (<https://terpware.umd.edu>)
- R software: Free and available online (<https://www.r-project.org/>).
In addition, you will need to use R Studio (also the free version), which is an integrated development environment for R (<https://www.rstudio.com/>)

Recommended Resources



Visual and Statistical Thinking: Displays of Evidence for Making Decisions
Edward R. Tufte
ISBN: 978-0961392130

Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Please visit www.ugst.umd.edu/courserelatedpolicies.html for the Office of Undergraduate Studies' full list of campus-wide policies and follow up with me if you have questions.

Activities, Learning Assessments, & Expectations for Students

Everyone begins the course with full in-class participation credit, and I hope all of you will retain it to the end. However, deductions will be made from an individual's in-class participation credit if (e.g., being absent when there is an in-class assignment).

Before Class: You should complete all listed readings before class. Lectures will be brief and will cover course material, but you will only develop a deep enough understanding of the material for tests, assignments, projects, and discussion through completing the assigned reading. You are responsible for keeping up with readings per the schedule. You are responsible for setting your own reading pace to keep ahead enough to be prepared for class discussions and in-class assignments. You are also responsible for knowing where we are in our class discussions.

Attendance: Students are to come to all class meetings unless there is a university-accepted reason (e.g., illness). You are expected to attend every class. Keep in mind that much of the learning for the course occurs in class. You cannot participate in this learning if you are not present.

Class starts on time: Being late for class affects our learning experience and potentially in-class assignments. Be sure to come to class on time.

Absences: If you have to miss a class due to an illness or similar reason, contact the instructor before the class begins.

During Class: During class, we will have lectures, discussions, and in-class activities. Bring pens, papers, and assigned reading with you to class. Students should participate in class discussions and welcome the participation of others. A participation grade will be assigned and designated by the amount of participation each student contributes to course discussions and in-class activities.

In Class Assignments: There will be in-class assignments that you will be expected to complete during the class period. These in-class assignments have been designed to help you have a deeper understanding of the concepts while receiving support from the instructional team, in addition to working with your team on your team's projects.

Team Project: You will work in teams of 4-5 students on a Decision Making project. The project will involve understanding a real-world problem and working with your team to make decisions and then present recommendations to a specific audience of your choice. The team assignments will be given the week of October 1, and you will be expected to work with your team for the remainder of the semester, and present your final recommendation the last week of class.

Collaboration: You are expected to work collaboratively as teams throughout the course of the project. Each assignment should be collaboratively envisioned, planned, implemented, and written up with every member contributing equally to each part. Each team member will **individually** submit a confidential Team Member Evaluation Form to report the relative effort/contribution of each person including yourself for each major project deliverable. Evaluations will be factored into your grade.

Team Presentation: You will be expected to present your Decision Making project results. The presentations will be a 15 minute in-class presentations (including a 3-minute Q&A) highlighting your findings to convince the audience of your choice on a decision they need to make. All students viewing the presentations will complete a feedback form, based on their knowledge of decision making gained throughout the semester, offering their opinion about the strengths and weaknesses of the projects.

Individual Homework Assignments: There will be homework assignments that help with your learning in this course.

Mid-term Practice Quizzes: There will be 2 quizzes administered before the mid-term exam. The goal of these quizzes is for you to understand what type of questions will be on the mid-term and practice studying for mid-term exam.

Mid-term Exam: A mid-term exam will be administered to test your understanding of the concepts and skills introduced in class and readings.

Final Exam: There will not be a final exam in this class. Your final evaluation will be your group project presentation. Each team member will be expected to participate in the presentation, which will translate into a grade equivalent to a final exam grade.

Late Assignments: All assignments must be submitted on ELMS. Assignments must be turned in by 11:59pm on the day they are due. The general policy in this class is that late assignments (both individual and team assignments) will be deducted 15% of its points after 11:59pm, and an additional 10% of its points each day they are late. Late assignments will be accepted according to this policy up to three days after the assignment due date. Assignments more than five days late will not be accepted. It is at the instructor's discretion to accept late work and assign late point deduction. Because the last half of the semester's assignments in this course accumulate for the final project, it is crucial to follow the assignment schedule.

Meeting with Dr. Weaver: We will not have class on Thursday, October 17 or Tuesday October 22. Instead, your team will meet with Dr. Weaver to discuss your project plan. You will receive information about how to sign up for a time slot for meeting after your team has been assigned.

Extra Credit Work: Students sometimes ask for some extra credit work in an attempt to bring up grades. Extra credit work will not be given on an individual basis. However, there will be several opportunities for you to earn extra credit during the semester. They will be announced ahead of time so you can plan accordingly. I strongly suggest you take the opportunity to participate in the extra credit work, as it can make a significant difference in your final grade.

Course-Specific Policies

No computers, phones or tablet devices are permitted during our class lectures. I understand and have considered arguments for permitting laptop and tablet computers in the classroom. However, in my experience (and based on the research evidence) the reality is that they present an irresistible distraction and detract from the cooperative learning environment. Researchers have found that these distractions do in fact interfere with learning and active participation. In addition, there are studies that show that taking notes by hand uses a different part of your brain than taking notes with a computer. You will most likely be in a situation after graduation where you will not be allowed to use a computer in a meeting for note taking, so I'd like you to take this opportunity to practice note taking by hand. Therefore, the use of computers and phones will not be permitted during class lectures (except when required for DSS accommodations).

However, after the lecture during each class, there will be activities that will require a computer. So be sure to bring your computer or tablet with you to complete these in-class activities.

I expect you to make the responsible and respectful decision to refrain from using your cellphone in class. For more information about the science behind the policy watch: <http://youtu.be/WwPaw3Fx5Hk>

Making Up Missed In-Class Work. When you miss an **individual assignment** due to an excused absence, you may submit the assignment for full credit before the start time of the next class. For **group assignments**, you should submit a reflection on your group's work on the day you missed and your group's project since the in-class assignment was done. **Make up exams** will only be given for excused absences that are proven by relevant paperwork (e.g., a doctor's note). In such cases, make up times should be scheduled with the instructor.

Responding to Email. All email concerning the class should be addressed to the instructor. I will make every effort to answer your email in a timely fashion. However, you should not necessarily always expect to get an immediate reply (e.g., when it is several hours before an assignment is due). Be sure to include "INST 354 Decision-Making" at the beginning of the subject line of your email.

Showing Respect. You are expected to show your respect to all people and projects in class. For example, when you evaluate others' ideas or other teams' projects, show your respect for their effort and outcomes, and then provide your comments or suggestions in a way to help improve the interaction design.

Get Some Help!

You are expected to take personal responsibility for your own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> and schedule an appointment with an academic coach. Sharpen your communication skills (and improve your grade) by visiting <http://ter.ps/writing> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <http://www.counseling.umd.edu>.

Everything is free because you have already paid for it, and **everyone needs help...** all you have to do is ask for it.

Grades

Grades are not given, but earned. Your grade is determined by your performance on the learning assessments in the course and is assigned individually (not curved). If earning a particular grade is important to you, please speak with me at the beginning of the semester so that I can offer some helpful suggestions for achieving your goal.

All assessment scores will be posted on the course ELMS page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet.

I am happy to discuss any of your grades with you, and if I have made a mistake I will immediately correct it. Any formal grade disputes must be submitted in writing and within one week of receiving the grade.

Learning Assessments	#	Points Each	Category Total	Category Weight
Homework: Out-of-class assignments submitted on ELMS	4	50	200	10%
Participation/In-class Assignments: individual and group assignments and contributions to class discussions	26	10	260	10%
Team Project:				50%
Project Assignment 1	1	50	50	10%
Project Assignment 2	1	50	50	10%
Project Assignment 3	1	50	50	10%
Project Assignment 4	1	50	50	10%
Project Presentation	1	100	100	10%
Team Meeting with Dr. Weaver	1	50	50	10%
Practice Quizzes	2	20	40	5%
Midterm Exam	1	150	150	15%
Total Points:			1000	100%

Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same thing as making the cut (89.99 \neq 90.00). It would be unethical to make exceptions for some and not others.

Final Grade Cutoffs				
+ 97 - 100%	+ 87 - 89.9%	+ 77 - 79.9%	+ 67 - 69.9%	
A 93 - 96.9%	B 83 - 86.9%	C 73 - 76.9%	D 63 - 66.9%	F <60.0%
- 90 - 93%	- 80 - 82.9%	- 70 - 72.9%	- 60 - 62.9%	

Date	Topic	Reading	Homework Exams
Wk1: Aug 27&29	Introduction and Course Overview: What is a “Decision”?	RC Chapter 1 RC Chapter 2 (p 23-26)	
Module 1: Decision Analysis			
Wk2: Sept 3&5	Decision Analysis: Payoff Matrix	R-1 (1 st half: p 803-817) R-2 (p 736 – 751)	Homework 1: Due 9/8
Wk3: Sept 10&12	Decision Trees	RC Chapter 2 (p 26-32) R-2 (p 751 – 753 & 759 - 763)	Homework 2: Due 9/15
Wk4: Sept 17&19	Considerations/Pitfalls in Decision Analysis	RC Chapter 2 (p 32-42) R-3	
Module 2: Decision Making Process			
Wk5: Sept 24&26	Decision Process Decision Making	R-4: On Being Wrong	Homework 3: Due 9/29
Wk6: Oct 1&3	Information to Support Decisions	R-5: Blink: Chapter 2 and Conclusion	Practice Quiz 1: In Class 10/1 Group Assignments: 10/1 Homework 4: Due 10/6
Wk7: Oct 8&10	Perspectives on Decision-Making and Individual Differences	R-6: Thinking Fast and Slow (p 1-58)	Group Project Assignment 1: Due 10/11
Wk8: Oct 15&17	What Impacts Decisions	R-7: Deciding How to Decide	<i>No Class 10/17: Groups Meet with Dr. Weaver</i>
Wk9: Oct 22&24	Election/Political Decisions	R-8: The Political Brain: Chapter 2	<i>No Class 10/22: Groups Meet with Dr. Weaver</i> Practice Quiz 2: In Class 10/24 Group Project Assignment 2: Due 10/27
Wk10: Oct 29&31	Individuals vs Group Decisions	R-9: Argumentation and Emotional Processes in Group Decision-Making	
Wk11: Nov 5&7	Influencing Decisions	R-10: How to Change Minds: The Art of Influence Without Manipulation: Chapters 1 and 2	Advocacy Presentations: In Class 11/5 Review for Exam: In Class 11/7
Wk12: Nov 12&14	Framing and Communicating Decisions		Mid-term Exam: In Class 11/12 Group Project Assignment 3: Due 11/17
Wk13: Nov 19&21	The Decision Making Process	R-11: No More Bad Decisions	Group Project Assignment 4: Due 12/1
Wk14: Nov 26&28	Thanksgiving		Group Meeting: 11/26
Wk15: Dec 3&5	Group Presentations		Group Presentation Order TBA