

Syllabus: Cognition and Decision Making

Spring 2023

01:185:301

Instructor Information

Instructor	Email	Office Location & Hours
Joseph Sommer	Joseph.sommer@rutgers.edu	Busch Psychology A108, Hrs TBD
Recitation Instructor	Email	Office Location & Hours
Francesca Lofaro		TBD

General Information

Lectures Meet

Mon/Thurs, 12:10-1:30, CAC, Murray Hall, Rm 208

Recitation Sections Meet

Section 01: Tues, 10:35-11:30am, LIVI, Beck Hall, Rm 111

Section 02: Tues, 12:25-1:20pm, LIVI, Tillett Hall, Rm 103C

Pre-requisites

Cognitive Science: A Multi-disciplinary Introduction (01:185:201)

Description

This course will survey the major research topics in the psychology of judgment and decision-making. Throughout the semester, we will be mindful of three questions about decisions-making (1) How *should* we make decisions? I.e., how should an ideal decision-maker seek out information, weigh options, and select the alternative that best meets their goals? (2) How do people actually make decisions in the real world? Research suggests that questions 1 and 2 often have different answers. That is, people often fail to make optimal decisions. These findings have important implications for our understanding of whether humans are or are not rational. It also suggests that there is room for improvement in human decision-making. Question (3), therefore, asks how we can improve our decisions.

The course is divided into three modules. The first module is concerned with *epistemic rationality* - or forming true beliefs - which are often a pre-requisite for making appropriate choices. The second module explores the gap between belief and decisions: in cases like procrastination, we know what the correct choice is, but may fail to act in accordance with our beliefs. In this module, we will be interested in *instrumental rationality*, or the ability to achieve our goals. Finally, in module three, we will discuss methods of improving decision-making which may enable us both to form more accurate beliefs and to better achieve our goals.

Course Learning Objectives

The primary objectives of this course are:

- To familiarize students with the major findings in the science of decision-making
- To introduce students to the major controversies and theoretical positions on human decision-making, including debates over whether people are rational or irrational
- To provide practical tools for improving real-world decisions

Grading

TBD

Disability Services

Rutgers welcomes students with disabilities into all of the University's educational programs. To request accommodations, students must follow the procedures of the Rutgers Office of Disability Services. More information can be found at ods.rutgers.edu.

Academic Integrity

Rutgers University takes academic dishonesty extremely seriously. All students are expected to maintain the highest level of academic integrity. You can familiarize yourself with the University's policy on academic integrity at academicintegrity.rutgers.edu.

Course Materials

Required Materials

- TBD

Course Schedule

Week	Topic	Reading	Exercises
Week 1	Introduction: What is Rationality?	TBD	TBD
<i>Module 1: Epistemic Rationality - Forming True Beliefs</i>			
Week 2	Expected Utility Theory	TBD	TBD
Week 3	Framing and Prospect Theory	TBD	TBD
Week 4	Heuristics and Biases	TBD	TBD
Week 5	Fast and Frugal Heuristics	TBD	TBD
Week 6	Bounded Rationality	TBD	TBD
Week 7	Midterm	TBD	TBD
<i>Module 2: Instrumental Rationality - Achieving Goals</i>			
Week 8	Intertemporal Choice + Procrastination	TBD	TBD

Week	Topic	Reading	Exercises
Week 9	Game Theory + Strategic Decisions	TBD	TBD
Week 10	Emotions	TBD	TBD
Week 11	Behavioral Economics	TBD	TBD
<i>Module 3: Improving Decision-Making</i>			
Week 12	Learning	TBD	TBD
Week 13	Cognitive Approaches to Debiasing	TBD	TBD
Week 14	Technologist Approaches to Debiasing	TBD	TBD

Additional Information and Resources

TBD

TBD