

Judgment and Decision Making

Math 114-01 Syllabus

Spring 2025

Instructor : Richard Bartels, PhD

Contact Information :

Office Hours: MWF 10:00 - 10:50am, 12:00 - 1:30pm
or by appointment (email to set up)

Office: MECC 227

Phone: 860-297-4244

Email: richard.bartels@trincoll.edu

Lecture : MWF 11:00 - 11:50am MECC-270

Textbook : *Excursions in Modern Mathematics* 8th edition by Peter Tannenbaum

Note: Getting the textbook for this course is optional. I will post detailed lecture notes on Moodle for each section of the book that we cover, and will write out the problems for your homework assignments.

Grading : Course grades will be assigned in the following way. Your final letter grade will be determined from your numerical percentage grade in the standard way. (... , B 83-86, B+ 87-89, A- 90-92,...)

Attendance/Participation :	5%
Homework and Quizzes :	20%
Midterm Exams (3 total) :	50%
Final Exam :	25%

Office Hours : You are encouraged and expected to come to office hours whenever you have questions about the course material. This includes material covered in lecture, homework, and exam problems. If you are unable to make my office hours at any time, please email me to set up a different time to meet.

Please read and sign the following declaration regarding academic integrity:

In accordance with Article II of the Trinity College Student Integrity Contract, I hereby pledge that the papers, exams, and other academic exercises I submit for this course will represent my own work; that I will properly acknowledge and attribute any and all information and ideas that I have used from other sources; and that no collaboration unauthorized by the instructor of the course will occur in the course of its completion.

Signature: _____

Date: _____

Tutoring: Drop-in tutoring is available in the Math Tutoring Center (Q-Center), located in MECC 172, Monday through Thursday 4-10pm and Sunday 7-10pm. The schedule and instructions to access tutoring will be made available in the second week of classes and linked from Moodle.

<https://www.trincoll.edu/quantitative-center/tutoring-support/>

Important Dates:

Add/Drop period ends	Tues	Jan 28
Last day to switch to Pass/Fail	Tues	Jan 28
Spring Break - no classes	Mon - Fri	Mar 17-21
Major Declaration deadline for soph.	Fri	Mar 28
Last day to withdraw	Tues	Apr 1
Final Exam period	Mon - Fri	May 5 - 9

Expectations:

- You should have a good working knowledge of algebra to succeed in this course. The work for this course will require a decent intuition for problem solving and logical thinking. There will be some rote calculations, but many problems will require that you organize the given information to construct a step-by-step solution method.
- You are expected to participate in lecture. Your focus should be on keeping up with and understanding the material we are covering. Please ask questions when you don't understand something! If you fall too far behind, take notes and come to office hours.

Course Description : In this course, you will learn about and develop mathematical methods for solving problems in political and social science, governance, and everyday life. We will see how algebra, arithmetic, and logic can be used to resolve disagreements that arise in groups and communities. We will also compare possible solutions to such problems, like determining the winner of an election, and consider whether or not the solutions are fair; i.e., if they represent the collective will of the group or community.

Missed Exams/Assignments : Under normal circumstances, missed homework, quizzes or exams cannot be made up and will receive a grade of zero. In the event of an unforeseen unavoidable circumstance which prevents you from attending class on the day of a quiz or homework due date, a suitable make-up assignment, or excusal from the assignment will be granted on a case-by-case basis, provided there is written documentation of illness or emergency, or a note from the Dean of Students office.

Homework : I will assign written homework every 1-2 weeks. Written homework is due at the beginning of class on the due date. I encourage students to form study groups and to visit office hours or the Tutoring Center to get help with homework problems. However, you must write your own solutions to assignments.

Quizzes : There will be an in-class quiz roughly every Friday during the last 10-15 minutes of class. Quizzes will be announced in advance, along with the sections they will cover.

Exams : There will be three **in-class** 50 minute exams during the semester, which have been tentatively scheduled as indicated on the schedule below, and one cumulative final exam. Our final exam has already been scheduled by the registrars office according to the official block schedule for Friday May 9, 12:00 - 2:30pm ET.

DO NOT MAKE ARRANGEMENTS TO LEAVE CAMPUS BEFORE THE FINAL EXAM PERIOD IS OVER. NO EXCEPTIONS WILL BE MADE FOR ANY REASON.

Students with Accommodations : Trinity College is committed to creating an inclusive and accessible learning environment consistent with the Americans with Disabilities Act. Students with disabilities who may need some accommodation in order to fully participate in this class are urged to contact the Student Accessibility Resource Center, as soon as possible, to explore what arrangements need to be made to assure access.

If you have approval for academic accommodations, please notify me by the end of week two of classes. For those students with accommodations approved after the start of the semester, a minimum of 10 days' notice is required. Please be sure to meet with me privately to discuss implementation.

Student Accessibility Resources can be reached by emailing SARC@trincoll.edu

Academic Integrity : In accordance with the Trinity College Student Integrity Contract, students are expected to abide by the highest standards of intellectual honesty in all academic exercises. Intellectual honesty assumes that student do their own work and that they credit properly those upon whose work and thought they draw. It is the responsibility of each student to make sure that they are fully aware of what constitutes intellectually honest work in every exam, quiz, homework, or other academic exercise submitted for evaluation in a course at Trinity College. Cheating is dealt with harshly and can result in a score of zero on the exam, quiz, or assignment in question, or a grade of F for the course.

Course Policies :

- **Low Exam Policy :** If your grade on the final exam is better than the grade on your lowest midterm exam, your final exam grade will replace your low exam grade. Note: you must take all three midterm exams.
- **Calculator Policy :** You may use a scientific or basic function calculator during quizzes and exams. You are not allowed to use a graphing calculator during quizzes or exams.

- **Use of Moodle** : I will use Moodle to post links to lecture notes, supplemental and review material, copies of homework assignments, solutions, handouts, etc. Please make sure you are able to access the Moodle site and bookmark it.
- **Use of Email** : I will use trincoll email to make mass announcements. Please make sure that your Trinity email account is working and check regularly for announcements.
- **Grade Policy** : The math department has the policy that the grade of A+ is not awarded in 100-level math courses.

Tentative Schedule :

Monday	Wednesday	Friday
1/20: Martin Luther King Day (no class)	1/22: Syllabus and Chapter 1- Unweighted Voting	1/24: Chapter 1-Unweighted Voting
1/27: Chapter 1-Unweighted Voting	1/29: Chapter 1-Unweighted Voting	1/31: Chapter 1-Unweighted Voting
2/3: Chapter 1-Unweighted Voting	2/5: Chapter 2-Weighted Voting	2/7: Chapter 2-Weighted Voting
2/10: Chapter 2-Weighted Voting	2/12: Chapter 2-Weighted Voting	2/14: Exam 1
2/17: Chapter 4- Apportionment	2/19: Chapter 4- Apportionment	2/21: Trinity Days (no class)
2/24: Chapter 4- Apportionment	2/26: Chapter 4- Apportionment	2/28: Chapter 4- Apportionment
3/3: Chapter 16-Probability	3/5: Chapter 16-Probability	3/7: Chapter 16-Probability
3/10: Chapter 16-Probability	3/12: Chapter 16-Probability	3/14: Exam 2
3/17: Spring Vacation	3/19: Spring Vacation	3/21: Spring Vacation
3/24: Chapter 16-Probability	3/26: Chapter 16-Probability	3/28: Chapter 16-Probability
3/31: Chapter 3-Fair Division and Gerrymandering	4/2: Chapter 3-Fair Division and Gerrymandering	4/4: Chapter 3-Fair Division and Gerrymandering
4/7: Chapter 3-Fair Division and Gerrymandering	4/9: Chapter 3-Fair Division and Gerrymandering	4/11: Chapter 3-Fair Division and Gerrymandering
3/14: Chapter 3-Fair Division and Gerrymandering	4/16: Chapter 3-Fair Division and Gerrymandering	4/18: Exam 3
4/21: Extra topics: Game Theory	4/23: Extra Topics: Game Theory	4/25: Extra Topics: Game Theory
4/28: Review for Final Exam	4/30: Last class -Review for Final Exam	

The content, policies, assignments, and schedule listed in this syllabus are subject to change. I will announce any changes via Moodle.