MATH 4803 Syllabus

Bridge to Mathematics (Fall 2026, 3 credits)
Sections: HP, LEY

Instructor Information

Instructor: Anton Leykin

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General Course Information

Description

No, this is not a pre-math remedial course: "bridge" is a popular card game. We will learn how to play and then play. Studying parts of combinatorics and probability theory relevant to the game should help us play bridge better. We will split time between theory (both bridge and math) and practice (play and discussion). Bridge puzzles, math puzzles, mini-tournaments, post-game analysis -- all will be components of this course.

Course Learning Outcomes

Develop a strong understanding of discrete probability and statistics concepts relevant to games like bridge. Acquire foundational knowledge of duplicate bridge—including auctions, card play, and team strategies—across individual, pairs, and team tournament formats. Collaborate with your team during both bridge matches and mathematical projects involving probability, statistics, discrete mathematics, and computer science.

Required Course Materials

Materials will be provided in class.

Grading Policy:

Grades: A = 90+%, B = 80+%, C = 70+%, D = 60+%.

The total % comprises

- attendance/participation --- 20%
- homework (checked, not graded in detail) --- 20%
- quizzes (~10 short tests; taken in a random group of three students; graded) --- 20%
- exams (2 midterms; taken individually; graded) --- 20%
- project (~2-3-page team report; presentation in class) --- 20%
- final (tournament, no exam; counts toward attendance/participation)

Course Policies

Attendance and/or Participation

Attendance of all class meetings is expected due to the nature of this course.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review Georgia Tech's Honor Code and the student Code of Conduct.

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

Core IMPACTS is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated career competencies. This resource developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment

to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.