

Instructor: Dr. Joseph Stover
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Office hours: Monday 3:00 - 3:50 PM (office);
 Wednesday, 3:00 - 3:50 PM (in math lab, Herak 224);
 Thursday, 1:00 - 1:50 PM (office);
 Friday, 9:00-9:50 AM (office); by appointment, or just drop by.

Course meeting times: Monday, Wednesday, & Friday (MWF) 10:00 - 10:50 AM (02)
 Monday, Wednesday, & Friday (MWF) 11:00 - 11:50 AM (01)
 Room: Jepson 111

Course website: <https://connect.gonzaga.edu/stover/math-421-01-02-fall-2019->

Textbook: *John E. Freund's Mathematical Statistics with Applications* (8th edition) by Irwin Miller, Marylees Miller. ISBN-10: 0-32-180709-X, ISBN-13: 978-0-32-180709-0. This text is technically *out of print* but you can find both new and used physical copies online, or buy or rent digital copies. Older editions should be fine as a reference, but you will need to cross-check assigned problems with the 8th edition.

Statistical software, calculators, & computational aids: R statistical software will be used occasionally. Additionally, we will use Excel on other software or online apps. Instructions for installing R are posted on my GU Connect website. If you plan to take Math 422 Mathematical Statistics, you are advised to familiarized yourself with R, as it will be used more heavily in that course.

Course description: A mathematical treatment of the laws of probability with emphasis on those properties fundamental to mathematical statistics. General probability spaces, combinatorial analysis, random variables, conditional probability, moment generating functions, Bayes' law, distribution theory, and law of large numbers.
 Prerequisite: MATH 258 Minimum Grade: D

Course goals: The goal of this course is for you to develop an understanding of probability theory and how it is applied in other disciplines. This course also prepares you for Math 422 mathematical statistics. We will cover the mathematical foundations of probability theory and emphasize building a conceptual understanding.

Course Grading: The percentage allocated to each assignment category is summarized in the table below:

Homework & other Assignments	30%
Quizzes	10%
Lowest exam score	10%
Highest exam score	20%
Final Exam	30%
TOTAL	100%

Grades are calculated as a percentage and rounded to the nearest whole number percentage in the standard way (e.g. 79.5% is rounded up to 80% and any grade in [79, 79.5)% is rounded down to 79%). Letter grades are assigned according to your course average as follows: 90-100% is an A, 80-89% is a B, 70-79% is a C, 60-69% is a D, and 0-59% is an F. I reserve the right to assign “+” and “-” to letter grades at my discretion.

A note on collaboration and working in groups: Students are encouraged to work together on homework assignments and to study in groups. Helping other students and being helped by fellow students is a great way to learn. However, *you cannot claim to have solved a problem if you are not able to complete it on your own.* It is generally acceptable that someone explain the solution to you or that you find the solution from other sources on assignments where collaboration and access to other resources is allowed, however, you can not copy that solution down and claim to have solved the problem. You must be able to produce the solution from scratch on your own.

Homework and other assignments: There will be regular assignments posted on my GU Connect website. Some homework will be assigned from the textbook, and some will be of my own making. There may also be other homework assignments or other in class assignments from time-to-time. You are advised to work more problems than assigned though.

Exams and quizzes: There will be several regular quizzes, regular exams, and a comprehensive final exam. Exams will happen at regular intervals, and there will be roughly one to two quizzes between successive exams. The comprehensive final will be at the assigned time during the final exam period. The use of any materials such as notes, books, online or other references (but not limited to these) or any electronic devices during exams and quizzes is strictly prohibited unless specifically authorized by the instructor. Make-up exams and quizzes will only be given in extenuating circumstances at the discretion of your instructor and may include more difficult questions.

A NOTE ON HARASSMENT, NON-DISCRIMINATION AND SEXUAL MISCONDUCT: Consistent with its mission, Gonzaga seeks to assure that all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX and Gonzaga’s policy prohibit gender-based harassment, discrimination and sexual misconduct. Gonzaga encourages anyone experiencing gender-based harassment, discrimination or sexual misconduct to talk to someone from the Campus and Local Resources list found in the [Gonzaga’s Harassment and Non-Discrimination Policy](#).

It may be helpful to talk about what happened in order to get the support needed and for Gonzaga to respond appropriately. There are options for support and resolution, namely confidential [support resources](#), and campus reporting and support options available. Gonzaga will respond to all reports of sexual misconduct in order to stop the harassment, discrimination, or misconduct; prevent its reoccurrence; and address its effects. Responses may vary from support service referrals to formal investigations.

As a faculty member, I want to get you connected to the resources here on campus specially trained in and experienced in assisting in such complaints, and therefore **I will report all incidents of gender-based harassment, discrimination and sexual misconduct to Title IX.** A representative from that office will reach out to you via phone and/or email to explore options for support, safety measures and reporting. I will provide our Title IX Director with all relevant details, including names and identifying information, of the information reported. For more information about policies and resources or reporting options,

please visit the following websites: [Equity and Inclusion](#) and [Title IX](#). If you would like to make a report of harassment, discrimination or sexual misconduct directly, you may:

- Contact the Title IX Director by phone, email, or in person
Stephanie N. Thomas, Title IX Director
509-313-6910
whaleys@gonzaga.edu
Business Services Building, 018
- Or complete an online form: [Sexual Misconduct Report Form](#)

NOTICE TO STUDENTS WITH DISABILITIES/MEDICAL CONDITIONS:

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 for reasonable accommodation of their disabilities. If you believe you have a disability/medical condition requiring an accommodation, please call or visit the [Disability Access Office](#) (second floor of Foley Center Library, Room 208.)

CLASS ATTENDANCE: I follow [Gonzaga’s standard policy on absences](#): the maximum allowable absence is two class hours (100 minutes) for each class credit. For three-credit classes, the maximum absence is, therefore, six class hours (300 minutes). The grade for excessive absences is “V,” which has the same effect as “F” (Fail) and is counted in the GPA.

ACADEMIC INTEGRITY: All members of the Gonzaga community are expected to adhere to principles of honesty and integrity in their academic endeavors. You are expected to be familiar with the [University’s Academic Integrity Policy](#) and the potential sanctions for violating it. I will abide strictly by this policy’s procedures and guidelines. Ignorance of the policy will not serve as a defense against any violations.

RELIGIOUS ACCOMMODATIONS FOR STUDENTS: In compliance with Washington State law (RCW 28.10.039), it is the policy of Gonzaga University to reasonably accommodate students who, due to the observance of religious holidays, expect to be absent or endure a significant hardship during certain days of their academic course or program. The [Policy on Religious Accommodations for Students](#) describes procedures for students requesting a Religious Accommodation and for faculty responding to such a request.

COURSE EVALUATION: At Gonzaga, we take teaching seriously, and we ask our students to evaluate their courses and instructors so that we can provide the best possible learning experience. In that spirit, we ask students to give us feedback on their classroom experience near the end of the semester. I will ask you to take a few minutes then to carry out course/instructor evaluation on-line. Please know that I appreciate your participation in this process. This is a vital part of our efforts at Gonzaga to improve continually our teaching, our academic programs, and our entire educational effort.

NOTE: This syllabus is subject to change at instructors discretion. I will alert you of any changes through email or in class. You are responsible for any information disseminated from me by email or in class. You are advised to respond to any direct requests from your instructor within 24 hours.