



COURSE SPECIFICS

COURSE DESCRIPTION

Designed for students in Business and Economics, it introduces them to the basic elements of probability and statistics, covers descriptive statistics, elements of probability theory, properties of discrete and continuous random variables, sampling estimation, hypothesis testing, analysis of variance and regression analysis. The application of these concepts to problem solving in business and economics is emphasized.

INSTRUCTOR INFORMATION

- Prof. Hannah L. Randolph
- randolphh@cua.edu
- Email is the best way to reach me; I do my best to respond within one business day.
- Bio: I'm currently finishing up my PhD in gender and development economics at American University. I've taught this course twice before, and have also taught intro to micro and macro, a core course on social problems, and statistics for business. My research focuses on migration in developing countries and global care work. To find out more about me and my research, visit [my webpage](#).

CLASS MEETINGS

- Tuesdays and Thursdays
- 2:10pm – 3:25pm EST
- Zoom—link on Blackboard

OFFICE HOURS

- TBD

TEACHING ASSISTANTS

- Veronica Milosz
- milosz@cua.edu
- Office hours: TBD

PREREQUISITES

- See Enrollment Requirements

COURSE GOALS

By the end of this course, students will be able to:

1. Define the basic terminology and concepts of probability and statistics;
2. Analyze data and draw conclusions using descriptive statistics for both discrete and continuous probability distributions;
3. Describe and interpret sampling and sampling distributions;
4. Conduct hypothesis testing using basic methods of statistical analysis;
5. Use analysis of variance to analyze data;
6. Describe and use the basic concepts of regression analysis to analyze data.

INSTRUCTIONAL DELIVERY

This course will be conducted online via Zoom, with two synchronous sessions per week during our scheduled class time. All assignments will be posted and submitted on Blackboard.

INSTRUCTIONAL METHODS AND COURSE REQUIREMENTS

REQUIRED MATERIALS

Include any required texts or materials here. Please keep in mind that course materials must be registered with Barnes and Noble in order to comply with federal reporting requirements. Students are not obligated to purchase their materials through Barnes and Noble. To get started, click [here or go to https://www.facultyenlight.com/](#) and sign-in to begin the adoption process. And for any classes that are not requiring any textbooks, there is an option to select “No Text Material Required for This Course” on the adoption page. If you have questions, please email the bookstore at SM8060@bncollege.com.

Salkind, Neil J. *Statistics for People Who (Think They) Hate Statistics: Using Microsoft Excel 2016*. Sage Publishing, 2016. ISBN: 9781483374086.

Please note that this is the 4th edition of the version of this textbook using Microsoft Excel 2016. You are welcome to purchase an older edition, but please note that you will be responsible for any differences in the text. I suspect that the differences will be mainly in the Excel instructions rather than the statistical content, but it is something to be aware of. Other versions of this textbook using SPSS or R are not appropriate for this course.

RECOMMENDED MATERIALS

Salkind, Neil J., Bruce B. Frey, and Karin Lindstrom Bremer. *Study Guide to Accompany Salkind and Frey's Statistics for People Who (Think They) Hate Statistics, 7th edition*. Sage Publishing, 2019. ISBN: 9781544395999.

This is not at all required for the course, but would be my first recommendation if you are struggling with the course and want another resource. This will help with the statistical content, but not the Excel implementation. Older versions of the study guide would probably also be just as helpful, and are available used for a relatively low price.

REQUIRED TECHNOLOGY

Excel: We will use Excel to implement most of the statistical concepts in this course, and to practice calculating them. You should have a reasonably up-to-date version of Excel on your computer. Microsoft 365 is available for free to CUA students—instructions for its download and use can be found here: <https://technology.catholic.edu/resources/purchase/personal-use.html>.

If you know that you will be using a different statistical package for future coursework and would like to use it for this class, it may be possible for us to work something out. If you hope to use another statistical package, you must meet with me in the first week of the course with a plan of how you will complete our coursework using that software and how you will access the software.

Zoom: Our class sessions and office hours will be hosted through Zoom, accessible via links posted to Blackboard. Information on using Zoom with the CUA license can be found here: <https://technology.catholic.edu/programs/zoom/index.html>.

Blackboard: All course content, assignments, and communication will be posted to Blackboard. I expect that you will check both Blackboard and your email frequently; all announcements will show up on the Blackboard homepage for the course and will also be pushed to your email account. Please ensure that the email address listed in your student account is one that you check frequently.

CLASS POLICIES

- **Attendance**
Attendance at online Zoom sessions is vital for staying engaged in the course, and is therefore expected. The Economics Department policy allows three unexcused absences; more than three unexcused absences from class sessions will result in failure of the course.
- **Technology**
You are welcome to take notes or follow along with Excel exercises on your own computer during class sessions. However, research shows that multitasking during class, particularly on social networks, is detrimental to academic performance (e.g. Junco 2012).¹ I expect that you will limit your engagement with non-course materials during our class time.
- **Late Assignments and Make-Up Exams**
Homework solutions are posted right after due dates, so no late homework assignments will be accepted. Similarly, exam make-ups are not available to ensure fairness for everyone in the class. However, we all have 'off' days, and sometimes forget due dates. As such, I will exempt the lowest three homework grades and the lowest exam grade at the end of the semester, including zeroes. Extensions on assignments may be available in special cases, but you must email me at least twenty-four hours prior to the deadline to obtain an extension.

GRADES

ASSIGNMENT TYPE	FREQUENCY	DUE DATE(S)	PERCENTAGE OF FINAL GRADE
Practice problems	Weekly	All due at the end of the semester (Dec 7 by 11:59pm EST)	10%
Homework	Weekly	Due Mondays by 11:59pm EST	30%
Journals and Discussion boards	Weekly	Due Thursdays by 2pm EST	20%
Exams	Three in the semester	See the Course Schedule section below for a linked to the detailed schedule	40% (highest two exams counted for 20% each)

¹ Junco, Reynol. 2012. "In-class multi-tasking and academic performance." *Computers in Human Behavior* 28(6): 2236-2243. Available <https://doi.org/10.1016/j.chb.2012.06.031>.

Grades on Blackboard will be updated weekly. However, they do not necessarily forecast the final course grade, as they may not reflect outstanding assignments.

Final grades will be assigned based on the following scale:

A	A-	B+	B	B-	C+	C	C-	D	F
100 - 96	95 - 91	90 - 86	85 - 81	80 - 76	75 - 71	70 - 66	65 - 60	59 - 55	<55

The University grading system is available

here: <https://policies.catholic.edu/students/academicundergrad/gradesfull.html#l>

Reports of grades in courses are available at the end of each term

on <https://csprd.cua.edu/psp/csprd/?cmd=login&languageCd=ENG&>.

COURSE SCHEDULE & BIBLIOGRAPHY

COURSE SCHEDULE

A detailed schedule for this course can be found at this link:

https://docs.google.com/spreadsheets/d/1wy2Dg2OnwTQ3yBTRYa_10_auWMV-Vkap2Wn6EQ_mFIM/edit?usp=sharing.

The course calendar on Blackboard contains all due dates, and can be accessed through the left-hand menu.

Please note that dates are subject to change. The detailed schedule and the course calendar will both be updated to reflect any changes, and I will announce significant changes in class or via Blackboard announcement. You will be responsible for meeting updated deadlines and being prepared for class.

CATHOLIC UNIVERSITY POLICIES

UNDERGRADUATE LEVEL

All members of the Catholic University community have a shared responsibility to know and to abide by the University's policies, especially relating to:

- Academic Integrity
- Accommodations for Students with Disabilities
- Attendance
- Conduct
- Final Exams
- Grades and appeals

All of Catholic University's policies are detailed at <https://policies.catholic.edu/index.html>. Please follow up with the instructor if you have any policy-related questions.

Of particular note are the policies regarding Academic Integrity, Accommodations for Students with Disabilities, and Final Exams, which are described below.

ACADEMIC INTEGRITY

Academic dishonesty at The Catholic University of America is not tolerated (<https://policies.catholic.edu/students/academicundergrad/integrityfull.html> and <https://policies.catholic.edu/students/academicundergrad/integrityprocedures.html>)

As such, academic integrity is not merely avoiding plagiarism or cheating, but it certainly includes those things. Academic integrity means, above all else, taking responsibility for your work, your ideas, and your effort, and giving credit to others for their work, ideas, and effort. If you submit work that is not your own – whether test answers, whole papers, or something in-between – that is considered to be academic dishonesty. University procedures related to academic dishonesty are conducted with respect and dignity, while also preserving accountability, and they presuppose that all participants will treat each other with respect and dignity.

The following sanctions are presented in the University procedures related to Student Academic Dishonesty:

“The presumed sanction for undergraduate students for academic dishonesty will be failure for the course. There may be circumstances, however, where, perhaps because of an undergraduate student’s past record, a more serious sanction, such as suspension or expulsion, would be appropriate. ...In the more unusual case, mitigating circumstances may exist that would warrant a lesser sanction than the presumed sanction.”

At times, you may do group work for an in-class presentation or group project. For that *specific* assignment, you are allowed to share material, ideas and information; however, for any related work that is to be submitted on an individual basis, your submission is expected to be your own in its entirety. If there is no group work in the class you should not collaborate with classmates on work that is to be submitted for an individual grade.

For more information about what academic integrity means at CUA, including your responsibilities and rights, visit <https://integrity.catholic.edu/index.html>.

Accommodations for students with disabilities: Any student who feels s/he may need a reasonable accommodation based on the impact of a disability should contact the Office of Disability Support Services (<https://dss.catholic.edu/index.html>) by email at CUA-DSS@cua.edu or call 202-319-5211 to make an appointment to discuss possible accommodations. DSS recommends that a student with a disability meet with DSS staff during the first week of every semester since accommodations are not retroactive. Please note that instructors will only provide those accommodations included in the DSS accommodation letter. DSS is located in PRYZ 127.

To receive accommodations in this class, you must give your accommodation letter to me at least 48 hours before the due date of the first assignment you wish to receive accommodations on. No retroactive accommodations can be applied. I also recommend that you meet with me early in the course to discuss your accommodations and how best to succeed in this course.

Final Exam: The final exam must be given on the day and time assigned by Enrollment Services. Please plan accordingly for travel, work, special events, or appointments. As stated in the policies above, no make-up exams will be given.

A student having an exam scheduling conflict as defined in the policy must report to her/his school's Academic Dean's Office no later than fourteen calendar days before the end of classes. The dean will assist the student in rescheduling the exam(s) for the course having the lowest enrollment(s). All make-up exams must be completed at the earliest possible time during the final examination period.

UNIVERSITY RESOURCES

- **Libraries** <https://libraries.catholic.edu/>
- **Center for Academic and Career Success** <https://success.catholic.edu/>
- **Math Center** <https://success.catholic.edu/academic-support/math-center/index.html>
- **Tutoring Services** <https://success.catholic.edu/academic-support/tutoring-services/index.html>
- **Writing Center** <https://success.catholic.edu/academic-support/writing-center/index.html>
- **Office of Disability Support Services** <https://dss.catholic.edu/index.html>
- **Counseling Center** <https://counseling.catholic.edu/index.html>
- **Student Health Services** <https://health.catholic.edu/index.html>
- **Dean of Students Office** <https://deanofstudents.catholic.edu/index.html>