



**GORDON**  
COLLEGE

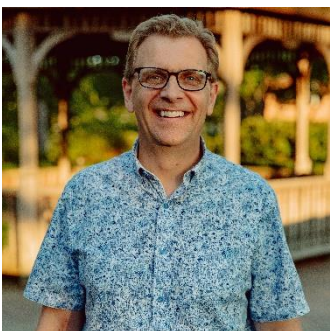
# FIN 521: QUANTITATIVE METHODS

## SYLLABUS

### INSTRUCTOR

Rich Swanson

Ph.D. Gordon College  
Senior Lecturer



### COURSE OVERVIEW

Welcome to Quantitative Methods! Though the name may not convey a sense of excitement, I think you will love this course. It will teach you a series of powerful tools for analyzing many types of financial and economic data. The class runs for eight weeks and is part of the Gordon Online Program. All aspects of the course are asynchronous (meaning there are no live meetings), with one exception: a final project entitled the Investment Portfolio Project. For this project there will be a live, online meeting where your team will make a presentation. The presentations will take place the last week of class.

### CONTACT

[Rich.swanson@gordon.edu](mailto:Rich.swanson@gordon.edu)

### COURSE DESCRIPTION

This class explores the development, testing, and application of multiple regression models in financial, economic, and business analysis and forecasting. Course material will include statistical concepts, probability concepts, probability distributions, sampling, hypothesis testing, time series analysis, and multifactor models.

CATALOG NUMBER

SEMESTER, YEAR

COURSE FORMAT

Gordon Global Online

TIME COMMITMENT

8 weeks, 120 hours, approximately 15 hrs/wk

OFFICE HOURS

By appointment

PROGRAM OUTCOMES

1. Recall and define financial, statistical and probability terminology
2. Perform statistical calculations
3. Interpret and apply financial concepts to economic and financial data
4. Work in teams to develop an investment portfolio
5. The student will be able to critically evaluate an investment portfolio and report
6. The student will be able to discern manipulation of statistics in current society
7. The student will be able to compare data sets and forecasts using quantitative methods to make recommendations

REQUIRED TEXTS AND MATERIALS

Modern Business statistics With Microsoft Excel 7<sup>th</sup> Edition David R. Anderson | Dennis J. Sweeney | Thomas A. Williams | Jeffrey D. Camm | James J. Cochran | Michael J. Fry | Jeffrey W. Ohlmann. Copyright 2021

**COURSE SCHEDULE**

MODULE	WEEK	TOPIC	WORK DUE
Module 1	Week 1	Time Value of Money & Discounted Cash Flow & Introduction to Statistics	Hydropower cash flow workbook and discussion Chapter 1 Activities
Module 2 Statistical Concepts & Market Returns	Week 2	Statistical Concepts & Market Returns	Chapter 2-3 Activities Interest Rates of Nations Erroneous Use of Statistics Discussion

## CATALOG NUMBER

## SEMESTER, YEAR

Module 3	Week 3	Introduction to Probabilities and Discrete Probability Distributions	Chapter 4, 5, 6 Activities Use of Statistics Discussion Peer Review
Module 4 Sampling and Estimating	Week 4	Sampling and Estimating	Chapter 7, 8 Activities Use of Statistics Discussion Peer Review
Module 5 Interval Estimation and Hypothesis Testing	Week 5	Interval Estimation and Hypothesis Testing	Chapter 9, 10, 11 Activities Peer Review
Module 6 Goodness of Fit and Intro to Linear Regression	Week 6	Goodness of Fit and Intro to Linear Regression	Chapter 12, 13, 14a Activities Peer Review
Module 7 Simple and Multiple Regression; Regression Analysis	Week 7	Simple and Multiple Regression; Regression Analysis	Chapter 14b, 15, 16 Activities Peer Review
Module 8	Week 8	Time Series Analysis	Chapter 17 Activities Investment Portfolio Project

**GRADE DISTRIBUTION:**

Homework and Peer Reviews	30%
Project	30%
Midterm	15%
Discussions and YellowDig Participation	10%
Final	15%

**MINIMUM TECHNOLOGICAL SPECIFICATIONS**

In order to participate in this course, you will need reliable access to the following:

For hardware discounts, check out: <https://Gordon.edu/technologydiscounts>

**COMPUTER MINIMUM SPECIFICATIONS:****Windows**

1.1GHz or faster processor, 8GB RAM

Please install the most recent operating system and web browser. (Chrome or Firefox are preferred)

**Macintosh**

1.1GHz or faster processor, 8GB RAM

Please install the most recent operating system and web browser. (Chrome or Firefox are preferred)

We do not support

Taking courses or viewing videos on mobile devices

Linux/Chromebook

Taking quizzes or exams on mobile devices or tablets

Beta versions of any software

You may also need to install the following programs or applications: (you may need administrator access to install these on your device)

Respondus Lockdown Browser

Zoom

Canvas Student App

**Internet Speeds**

Download/upload: minimum 10 Mbps, wired connection recommended.

Can check at <https://speedtest.net/>

**Video**

Students may be required to use a webcam during class. Many laptops, tablets, and cell phones have webcams built in. If your device does not have this, you will need to obtain one.

**Audio**

Be prepared to use a microphone for some class activities. Do not plan to use the microphone that is built into your computer. You can use an external headset, or a set of earbuds. Avoid wireless headphones if possible.

**POLICIES****COURSE POLICIES**

List any policies here about late work, formatting, communication, etc.

## ACADEMIC POLICIES

### ACADEMIC ASSISTANCE

The Academic Success Center serves the academic needs of all students by providing small-group support for large core courses; a Writing Center with trained, peer tutors; subject tutors for specified courses; specialized academic advising; workshops and one-on-one staff support for time management and study skills.

The ASC is dedicated to helping students develop self-awareness as learners and investigate new strategies and techniques for effective academic performance. Professional staff members are available to assist all students with issues related to academic performance and learning disabilities that affect a student's general academic progress.

To review our online resources, [click here](#). To schedule a time to discuss your academic needs with one of our team members, complete [this form](#).

### ACCOMMODATIONS STATEMENT

Our academic community is committed to providing access to a Gordon education for students with disabilities. A student with a disability who intends to request academic accommodations should follow this procedure:

1. Virtually meet with a staff person from the Academic Success Center (ASC) and provide them with current documentation of the disability.
2. [Obtain a Faculty Notification Form from the Academic Success Center](#), listing appropriate accommodations; and
3. Submit this form to professors and discuss those accommodations with them, ideally within the first week of classes.

Some accommodations need more time to arrange so communicating early in the semester is important. For more information consult the Academic Success Center webpage: <http://www.gordon.edu/academicaccessibility> or email [asc@gordon.edu](mailto:asc@gordon.edu)

### ACADEMIC DISHONESTY STATEMENT

Academic dishonesty is regarded as a major violation of both the academic and spiritual principles of this community and may result in a failing grade or suspension. Academic dishonesty includes plagiarism, (see Plagiarism in Student Handbook), cheating (whether in or out of the classroom), and abuse or misuse of library materials when such abuse or misuse can be related to course requirements.

## ACADEMIC INTEGRITY

Gordon College strives to graduate men and women distinguished by intellectual maturity and Christian character, committed to lives of service and prepared for leadership worldwide. Essential to the success of this educational mission is a commitment to the principles of academic integrity. Every member of the Gordon community is responsible for upholding the highest standards of honesty at all times. Students, as members of the community, are also responsible for adhering to the principles and spirit of the academic integrity policy.

Academic Dishonesty refers to activities that have the effect or intention of interfering with education, pursuit of knowledge, or fair evaluation of a student's performance are prohibited.

**Cheating:** using or attempting to use unauthorized assistance, material, or study aids in examinations or other academic work or preventing, or attempting to prevent, another from using authorized assistance, material, or study aids. *Examples:* Using a proxy test taker, using unsanctioned test aids, copying another's answers, using outside help, prior knowledge of test content, tampering with results

To prevent cheating, the following measures are instituted by Gordon College:

1. Students will need to show state or school-issued identification just prior to taking the quiz or test:
2. Quizzes and tests must be taken using remote proctoring software designed to lock down the student's computer during the test so that other applications, documents, or web browser windows cannot be viewed or opened.
3. A webcam will be used to monitor the student while taking the quiz or exam. Looking away from the screen to review notes or other electronic devices will flag the student's exam

Cheating may result in a failing grade or suspension

**Plagiarism:** using the ideas, data, or language of another without specific or proper acknowledgment. *Example:* copying another person's paper, article, or computer work and submitting it for an assignment, cloning someone else's ideas without attribution, failing to use quotation marks where appropriate, etc.

To prevent cheating, the following measures are instituted by Gordon College:

1. Students will need to agree to the Academic Integrity Policy prior to submitting predetermined written work

2. The student's submissions will be submitted through a plagiarism and originality checker that checks the document against online journals, websites, and other student submissions in a database. A score is generated to help the student and the instructor determine potentially plagiarized materials, though this score does not necessarily indicate plagiarism has occurred.
3. Students with questionable originality reports may be asked to discuss the results with the instructor or an academic representative.

Plagiarism may result in a failing grade or suspension

**Fabrication:** submitting contrived or altered information in any academic exercise. *Example:* making up data for an experiment, fudging data, citing nonexistent articles, contriving sources, etc.

**Multiple submission:** submitting, without prior permission, any work submitted to fulfill another academic requirement.

**Facilitating academic dishonesty:** knowingly helping or attempting to help another violate any provision of the academic integrity policy. *Example:* working together on a take-home exam, etc.

**Unfair advantage:** attempting to gain unauthorized advantage over fellow students in an academic exercise. *Example:* gaining or providing unauthorized access to examination materials, obstructing or interfering with another student's efforts in an academic exercise, lying about a need for an extension for an exam or paper, continuing to write even when time is up during an exam, destroying or keeping library materials for one's own use, etc.

If a student is unsure whether his action(s) constitute a violation of this Academic Integrity Policy, then it is that student's responsibility to consult with the instructor to clarify any ambiguities.

#### ATTENDANCE AND PARTICIPATION POLICY

For each semester hour of credit, students should expect to spend a minimum of 2-3 hours per week outside of class in engaged academic time. This time includes reading, writing, studying, completing assignments, lab work, or group projects, among other activities.

Gordon Global Online courses are designed to be asynchronous in nature. This means that while attendance in the online course room at predetermined times each week is not required, the amount of time that the student is expected to invest in the course each week remains equivalent to the on-campus version of the course. Some courses

may have synchronous components. These will clearly be communicated at the start of the term and are often supplemental.

### EXTENSIONS

Students are expected to manage their time independently for their academics. Each student should complete their weekly work by the due date to avoid late penalties, as determined by the professor. In the case where a student is unable to participate in the course the expected amount per week, or complete an assignment by the due date, the student should communicate proactively with the professor. If it is warranted for illness, emergency, or other reasonable purposes, the faculty may elect to grant the extension.

All written work for a given course is normally due no later than the last day of the course. The instructor has the right to grant an extension up to-but not beyond-the due date for grades. No work may be submitted after that time unless the student has submitted **an Incomplete grade request form** prior to the end of the semester. A final grade or an incomplete must be reported for every student. Faculty should notify the Registrar's Office of last date of participation in the course if a student stopped participating without official withdrawal.

### FINAL ASSESSMENTS

A final examination or other similar activity may be required during scheduled quad and semester final exam periods. Final examinations may not be changed due to travel arrangements or outside commitments or conflicts. However, students are not required to take more than two in-class final exams on any given day. Students with three or more final exams on the same day may petition to have one examination time reassigned. [Contact the Registrar's Office](#). Changes are not allowed for any other reason. The Academic Programs Committee will only consider petitions demonstrating severe emergency. Students failing to take final assessments receive automatic zeroes, which are averaged into the final course grade.

### GRADES

A student is expected to maintain the 2.00 cumulative grade point average required for graduation-unless the major department has a higher minimum cumulative GPA. A "D" grade, while sufficient to receive credit for a course, reflects performance below the minimum required for satisfactory progress or the minimal course grade required by some major departments.

Defined Numerical Grades & Letter Grade Equivalents



LETTER GRADE	PERCENT GRADE	GRADE POINTS	MEANING
A+	97-100	4.0	Exceptional
A	93-96	4.0	Excellent
A-	90-92	3.7	
B+	87-89	3.3	
B	83-86	3.0	Good
B-	80-82	2.7	
C+	77-79	2.3	
C	73-76	2.0	Satisfactory
C-	70-72	1.7	
D+	67-69	1.3	
D	65-66	1.0	Low Pass
D-	60-66	.7	
F	Below 60	0.0	

### LIBRARY RESOURCES

Students have access to Jenks Library's online resources using their Gordon login. See the [Remote Library Research](#) tab on the [Remote Learning at Jenks Guide](#) for more details on what is accessible.

Questions about library resources should be directed to librarians in the Jenks Library. Librarians are available to assist you from the library reference desk, by e-mail at [library@gordon.edu](mailto:library@gordon.edu), or by phone (978) 867-4878.

### ADDITIONAL RESOURCES

Use this area to list a bibliography for the course. This should be a useful resource for students who are looking for articles or books on paper or project topics, or to research more deeply topics briefly addressed in the course.