

MGT 3078 Syllabus
Finance and Investments, 3 Credits
Remote Asynchronous

Instructor Information

Instructor	Email	Office Hours
Satyajit (Jeet) Karnik	skarnik33@gatech.edu	On-demand, zoom

Description

The objective of this course is to introduce students to the basic principles used in financial management and their applications in long-term investment and financing. Three fundamental principles of finance that are characterized in this course are: (a) time value of money, (b) relation between risk and return, and (c) managing risk using derivatives. Once the students get familiar with these principles, they will learn how to apply their knowledge to the savings and retirement problems, valuation of stocks and bonds, capital budgeting, risk management, and firm valuation. This course will be essential for students considering any career in finance. This course also lays the foundation for more advanced investment and corporate finance topics to be taught in the finance elective courses.

Course Goals and Learning Outcomes

The course explores the world of investments from three perspectives, personal finance, investor choice and corporate finance. Upon successful completion of the course, you should be able to:

- Compute time value of money,
- Conduct bond and stock valuation,
- Understand the interplay between risk and return and the benefits of diversification,
- Understand risk management strategies using financial derivatives,
- Analyze capital budgeting projects.

Course Requirements & Grading

There are 3 components to your grades: Quizzes, Homeworks and Tests.

8 Quizzes 5% each (Total 40%): Short 15-25 minute quiz. Short computation multiple choice questions occurring every week (approx.) submitted in class or by the end of the week. Quizzes are timed once you start. Submission on canvas.

2 Homeworks 15% each (Total 30%): More comprehensive problems essay type/short answer questions. Submission on canvas.

3 Tests 10% each (Total 30%): Comprehensive tests involving longer computations. Multiple choice and essay type questions. Timed once you start. Once every month (see detailed schedule below). Tests are not cumulative.

Grading Scale

Your final grade will be assigned as a letter grade according to the following scale:

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

To maintain fairness to all we will not allow extra credit opportunities in this course. All work is required to be completed and submitted by the due date and time. Late submissions will not be accepted.

Course Materials

Course Text

“Principles of Corporate Finance”, Brealey, Myers, 13th edition, any edition from 10th works equally well.

You need not buy the book.

Additional Materials/Resources

- Access to high speed internet
- Excel 2016 or above, with Solver
- Calculator BA II Plus (recommended) but any other will do.

Course Schedule*

This schedule is subject to change if necessary and is intended to give you a general idea of the pace of the course. **Always refer to the most up to date schedule available on the course home page in canvas.**

Time	Topics	Task*
Week 1	Introduction	
	Time Value of Money (TVM)	
Week 2	Applications of TVM	
	Introduction to Bonds, Bond Pricing	Quiz 1
Week 3	Bond pricing, YTM, Coupon effect, Law of one price, Fixed Income arbitrage	
	Pension fund problem, dedicated portfolios, Duration	Quiz 2
Week 4	Duration hedging	
	Default probabilities	Quiz 3
Week 5	Practice	
	Online Test 1	Test 1
Week 6	Stocks and stock valuation, dividend discount, Gordon growth model, calculation with risk and return,	

	Diversification, optimal portfolios and CAPM	Quiz 4
Week 7	CAPM applications	
	APT	
Week 8	Performance evaluation	
	Overflow	Quiz 5
Week 9		
	Capital Budgeting, NPV and IRR, WACC	Quiz 6
Week 10	Introduction to options	
	Practice	HW 1
Week 11	Practice	
	Online Test 2	Test 2
Week 12	Options Continued, Options payoff diagrams	
	Binomial Pricing of options	
Week 13	Projects with Embedded options	
	Strategy and game theory	Quiz 7
Week 14	Strategy and game theory	
Week 15	Practice	
	Practice	HW 2, Quiz 8
Week 16	Online: Final Test (Test 3)	Test 3
* Subject to change		

Academic Integrity

Honesty and transparency are important features of good scholarship. On the flip side, plagiarism and cheating are serious academic offenses with serious consequences. If any student is discovered engaging in either behavior in this course, they will earn a failing grade on the assignment in question, and further disciplinary action may be taken.

Additionally, any student suspected of cheating or plagiarizing on an assignment will be reported to the Office of Student Integrity, which will investigate the incident and identify the appropriate penalty for violations.

My aim is to foster an environment where you can learn and grow, while ensuring that the work we all do is honest and fair.

Here at Georgia Tech the aim is to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/>

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, 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 to set up a time to discuss your learning needs.

Religious Holiday

A student who wishes to observe a religious holiday/event should email the instructor within the first two weeks of the semester regarding the holiday/absence for planning purposes. If the absence falls on an examination date, the student will be allowed to complete make-up work.

Recordings of Class Sessions and Required Permissions:

Classes may not be recorded by students without the express consent of the instructor unless it is pursuant to an accommodation granted by the Office of Disability services. Class recordings, lectures, presentations, and other materials posted on Canvas are for the sole purpose of educating the students currently enrolled in the course.

Students may not record or share the materials or recordings, including screen capturing or automated bots, unless the instructor gives permission. Digitally proctored exams may require students to engage the video camera, but those recordings will not be shared with or disclosed to others without consent unless legally permitted.

- For classes where participation is voluntary, students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded.
- For classes requiring class participation, if students are identifiable by their names, facial images, voices, and/ or comments, written consent must be obtained before sharing the recording with persons outside of currently enrolled students in the class.

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. See [this catalog page](#) for an articulation of some basic expectation 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.

Online Student Conduct and (N)etiquette

Communicating appropriately in the online classroom (if necessary) can be challenging. In order to minimize this challenge, it is important to remember

several points of “internet etiquette” that will smooth communication for both students and instructors.

Netiquette refers to etiquette that is used when communicating on the Internet. When you are communicating via email, discussion forums or synchronously (real-time), please use correct spelling, punctuation and grammar consistent with the academic environment and scholarship.

We expect all participants (learners, faculty, teaching assistants, staff) to interact respectfully. Learners who do not adhere to this guideline may be removed from the course.

Statement of Intent for Inclusivity

As a member of the Georgia Tech community, I am committed to creating a learning environment in which all of my students feel safe and included. Because we are individuals with varying needs, I am reliant on your feedback to achieve this goal. To that end, I invite you to enter into dialogue with me about the things I can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community.