

## MGT 3078 Syllabus

### Finance and Investments, Sec A, 3 Credits

### Modality – Remote Asynchronous Online

#### Instructor Information

Instructor	Email	Office Hours & Meeting Link
Satyajit (Jeet) Karnik	skarnik33@gatech.edu	On demand

#### 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 Modality Information

The course will be remote online. All required materials will be accessible online in an asynchronous manner. We will have weekly quizzes (approximately). You are free to pace the study during the week but are required to complete the weekly quizzes on time. All assignments, quizzes and tests will be conducted online using canvas.

## Course Requirements & Grading

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

**6 Quizzes 5% each (Total 30%):** Short 10-20 minute quiz. Short computation multiple choice questions occurring every week submitted by the end of the week (see detailed schedule below). Quizzes are timed once you start. Conducted on canvas. Questions are randomized for every student.

**2 Homeworks (Group Submission) 15% each (Total 30%):** More comprehensive problems essay type/short answer questions. Indirectly prepares you for the tests! Submission on canvas.

**3 Tests (15% each for Tests 1 and 2 and 10% for Test 3. Total 40%):** Comprehensive tests involving longer computations. Multiple choice questions. Timed once you start for 60 minutes. Once every three weeks (see detailed schedule below). Tests are not cumulative. Conducted on canvas. Questions are randomized for every student.

## 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, 13<sup>th</sup> edition, any edition from 10<sup>th</sup> works equally well. We will not cover the whole book (it is approx. 1000 pages!). I will post required readings from the text every week.

### **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

The following is a tentative plan for the schedule through the semester. This schedule is subject to change if needed.

Time	Topics*	Deliverable*
Week 1	Introduction	
	Time value of money	
	Time value problems	Quiz 1
Week 2	Intro to bonds, rates, yield curves	
	Bonds and Bond pricing, YTM, Coupon effect	
	Law of one price, Fixed Income arbitrage	Quiz 2
Week 3	Pension fund problem, dedicated portfolios	
	the concept of duration, duration hedging	Quiz 3
Week 4	Practice (No new material)	
	Test 1	Test 1
Week 5	stocks and stock valuation, dividend discount, gordon growth model, calculation with risk and return	
	Diversification benefits	
	optimal portfolios	Quiz 4
Week 6	optimal portfolios, CAPM and APT	
	CAPM applications	
	CAPM and performance evaluation	HW1
	Problems	
Week 7	Practice (No new material)	
	Test 2	Test 2
Week 8	Capital Budgeting, NPV and IRR	
	WACC	Quiz 5
	Introduction to options	
Week 9	Options payoff diagrams	Quiz 6
	Managing risk using options	
	Binomial Pricing of options	
	Projects with embedded options	HW 2
Week 10		
	Final	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.

### **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 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.