

Center for Technical Education : Introduction to Quantitative Finance

Course Summary

- ❑ Subject : Introduction to Quantitative Finance
- ❑ Level : Beginner to Intermediate
- ❑ Objective : To introduce students to mathematical modeling of financial markets.
- ❑ Workload : 5 - 10 hours/week

Instructors

Mohit Bhandari, Aditya Dwivedi , Jash Patwa(Guest Lecture)

Course Requirements

Install a text editor. Highly recommended to use a UNIX based operating system (like macOS, Linux). Ubuntu preferred.

Weekly Schedule

At the end of every week there will be a simple assignment which will primarily focus on what was taught that week. Please note that this does **NOT** include the mini-projects. Week 6, 7 and 8 will be for discussion of the current mini-project implementation.

	Week	Topics	Resources
	1	<ul style="list-style-type: none">• What is Quantitative Finance• Aspects of Quantitative Finance• Quantitative Finance in contemporary	Lectures/Notebook
	2	<ul style="list-style-type: none">• Coding Basics••	Lectures/Notebook
	3	<ul style="list-style-type: none">• ries Analysis•	Lectures/Notebook
		<ul style="list-style-type: none">• Cross sectional Study	

	4	<ul style="list-style-type: none"> • Sampling Techniques 	Lectures/Notebook
	5	<ul style="list-style-type: none"> • Optimization Methods 	Lectures/Notebook
	6	Mini-Project I <20% of total grade>	PDF with hints and grading rubric
	6	<ul style="list-style-type: none"> • Combining the above concepts • Creating strategies 	Lectures/PDF
	7	Mini-project II <20% of total grade>	PDF with hints and grading rubric
	8	<ul style="list-style-type: none"> • Risk Management in Quantitative Finance 	Lectures/Notebook
	9	Group Project <20% of total grade>	PDF with hints and grading rubric
	10	<ul style="list-style-type: none"> • Guest Lecture 	Lectures/Notebook
	11	Final Project <25% of total grade>	

Weekly Assignments: 15%

Assessment

1. No attendance requirement.
2. All graded components are mini-projects.