FINA 5523: Financial Analytics

SUMMER 2025

Instructor	Dr. Yuriy Zabolotnyuk, CFA, FRM
Email Address	yuriy.zabolotnyuk@carleton.ca
Class Times	Wednesday 11:35am-2:25pm
Modality	In-person
Office Hours	By appointment
Office Location	7022 NI

Pre-Requisites & Preclusions:

Prerequisites: BUSI 5510 & FINA 5511

Course Description/Instructor's Statement

Carleton Calendar Description (Find at https://calendar.carleton.ca/grad/courses/FINA/)
Developing statistical models and using simulations to understand financial data using Python. Awareness of financial models related to investments and corporate finance and ability to write simple code in Python to implement the models in real-world scenarios and to visualize and analyze financial data.

Course Learning Objectives:

1. To analyze some of the most well-known financial models (e.g., Black-Scholes Model, Markowitz Mean-Variance Portfolio Model, Capital Asset Pricing Model) using historical data and code written in Python
2. To familiarize students with application of statistical models and computerized algorithms to the financial market data and investment portfolios
3. To create forecasted scenarios based upon historical data using simulations

Required/Optional Materials & Prices

Students are not required to purchase textbooks or other learning materials for this course.

Grading Scheme

Contribution to Class Discussion	10%
Home Assignments (2 x 20% Each)	40%
Final Project	50%
TOTAL	100%

Important Dates to Note

Deliverable	Due Date
Assignment 1	May 25, 2025
Assignment 2	June 8, 2025
Final Project	June 15, 2025

University Academic Calendar: https://calendar.carleton.ca/academicyear/

Policies & Accommodations

https://students.carleton.ca/course-outline/
https://carleton.ca/pmc/current-students/academic-accommodations/

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