

GBA485: Introduction to Python
Course Syllabus – Pre-Summer 2021

Instructor:

Professor Alan Moreira , alan.moreira@simon.rochester.edu
Associate Professor of Finance

Course Logistics:

Day,Time,location: TBA

Office hours:

Instructor and TAs available for questions on ### (Chat platform TBA)

Teaching Assistants:

- TBA

Important dates, Assignments, and Exams

- Problem set 1: TBA
- Problem set 2: TBA

Course Information

1. Course Description and Learning Objectives

This course will provide you a brief introduction to get start with Python and Jupyter notebook so you are ready to Fin418.

You do not need to know Python to take this class, but knowledge of programming in some language will make your life a lot easier. It will be very hard (impossible) for you to succeed in Fin 418 without learning Python as most problem sets will be submitted in Jupyter Notebook format. So I strongly recommend that you start investing now.

2. Communication and Office Hours

Neither me or the TAs will answer questions by email.

We're using ### for class discussion. Rather than emailing your questions, post on ### publicly. Personal/delicate questions can be posted privately to me or the TA's in the ### platform.

Please answer your classmate's questions; it's a huge help to us, and even if you're wrong everyone learns (we check the answers and clear up confusion).

Also, we encourage you to take credit for your questions and answers (rather than posting anonymously)! You will earn participation points for questions that you ask and, specially, questions from your colleagues that you answer.

First thing that you have to do is go to course blackboard site <https://learn.rochester.edu/>. and sign up for ## from there. You be asked to set a password of your choosing and after that you will be able to go to ### directly though the class page.

3. Required Material

In this class and Fin418 we will follow the material in the Quant investing book

<https://amoreira2.github.io/quantitativeinvesting/chapters/intro.html>

You should follow the steps here to get your software environment ready

https://amoreira2.github.io/quantitativeinvesting/chapters/02/local_install.html

1. Evaluation and grading

The course grade is based on the following:

2 Problem sets (individual)	100
Final grade	Pass or Fail

What do I expect from you in terms of participation?

- Engagement asking and answering questions on ###
- Engagement in class

What should you expect in terms of feedback?

- The best way to get feedback is by asking specific questions on ###
- The Problem sets will be graded automatically in blackboard and the TA will post solutions

2. Class Specifics

Re-grade Requests for problem sets: Verbal appeals of grades will not be accepted. A request for a re-grade must be made in writing and should be submitted directly to me. It should clearly and succinctly state the unambiguous error in grading, which you believe has occurred. Request for a re-grade must be made within a week of the work being returned. The entire exam should be resubmitted and will be reviewed; there is no guarantee that grades will rise as, statistically, positive and negative errors in grading are equally likely.

3. Accommodations

If you would like to request an academic accommodation based on having a qualifying disability, please contact both your instructor and Anna Rogers, the access coordinator for Simon, during the first two weeks of the course. Brad Rosenbaum can be reached in the Office of Student Engagement at Brad.rosenbaum@simon.rochester.edu or 585-275-2798.

4. Academic Integrity

Simon's Code of Academic Integrity (see Section 2 of the Student Handbook) states: *"Every Simon student is expected to be completely honest in all academic matters. Simon students will not in any way misrepresent their academic work or attempt to advance their academic position through fraudulent or unauthorized means. No Simon student will be involved knowingly with another student's violation of this standard of honest behavior."*

In addition to refraining from obvious forms of cheating and plagiarism:

- On assignments, do not copy or paraphrase work from each other, from students who have taken the class previously, from materials of mine distributed in a previous class, or from outside sources. Any written work should be entirely your own (or your team's, as applicable).
- Do not obtain advice, notes, solutions, or other material from students who took the class previously in ways that would give you an unfair advantage or would undermine the learning experience for you and the class (such as, notes from past case discussions). Similarly, do not use others' case analyses posted on-line.
- Use quotation marks when quoting any text directly. Changing a few words of a sentence or longer section does not make the work your own. Independently written texts rarely have even five consecutive words in common.

Most forms of disallowed shortcuts are easy to detect and will be referred to the school's Academic Integrity Committee. If something is going on in your professional or personal life that prevents you from finishing assigned work in a timely manner, get in touch with me before the deadline (and get in touch with Student Services as appropriate). Finally, to help prevent other students from violating academic integrity, do not pass on notes or give advice on assignments to any students who are taking the course in a later quarter or are taking it at the same time in a different section. Please refer to the Student Handbook for any questions regarding the Code of Academic Integrity

5. My expectation of students

Treat class sessions like business meetings. Unprofessional behavior has a negative impact on your participation grade. Specifically,

- Please zoom in if you are feeling under the weather:

***"Sore throat? Go remote!
Dry cough? Take the day off!
Went to a rave? Stay in your cave!"***

- Make every effort to attend each class
- It would be great if you could display your name in a class card so I can get to know you better.
- You are expected to be in your “seat” and ready for class at the beginning of each class. Should extenuating circumstances require you to leave early, please let the professor know before the start of class and sit in back so you can leave with as little disruption as possible. This hold even for zoom!
- You are allowed to use laptops and tablets during lecture, but they should only be used for coursework related activities and not for email, social media, or other activities not directly related to the course. Cell phones must be turned off or silenced during class. No photography of any kind is allowed.
- Students should budget a minimum of 9 to 12 hours per week to spend on this course between reading and class participation.
- All students are expected to do well in the course and the instructor will strive to help them achieve. The instructor also expects the students to be autonomous and "active" learners.
- Students should also help each other as best they can in a collegial manner. The instructor expects everyone to be kind and courteous to each other and to ask questions, not only to the instructor, but also to fellow classmates. This class will lend itself to student collaboration and "co-construction" of knowledge. The instructor expects that students will take advantage of that. In addition, the instructor expects the work students submit in this course to be their own. This is consistent with the University of Rochester policy on Academic Honesty.
- For online discussions, you will need to post comments that are scholarly and substantive. Substantive comments, for our purposes, are those that add insight, probe more deeply, challenge (intellectually), and generally help us learn. It is also helpful to post comments that are "social" in nature. So, while, "I agree" is not a substantive comment, it is a useful response in that it helps us know that we are being "heard". But you will need to post substantive comments to "get credit" for discussions. I also encourage you to edit before you post. This course is a graduate course, it is expected that you will carefully read and edit your work prior to sending it. It can be helpful to compose using a word processor to prevent cosmetic errors; this way you can concentrate on demonstrating your highest quality writing.

4. Zoom Behavior

- Keep the camera on at all times**
- Keep mic off unless talking
- To ask a question: unmute yourself , say "question here" and wait for me to tell you to go ahead and ask your question
- Do not use the chat to communicate with me during live classes. Feel free to use to ask questions to your classmates
- Dress professionally
- Be ready to be called to answer questions (if you have particular circumstances in that day that makes unmuting and talking complicated simply send me a private chat telling me that this was a not good time, but this should be rare. I expect most of you most of the time be ready to engage)

5. What can you expect from me and the TAs

- I will never answer an email from you, but you should expect prompt answers on ###. I will try to check at least three times per day.
 - The best opportunity to have a chat with me is during the office hours. If you want private one-on-one time during the office hours, just come at the start and I will lock the virtual room.
 - I welcome “confused” questions, i.e., when you are not even sure what you don’t get it. But try to formulate a question. It will help us both
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TO DO BEFORE THE FIRST CLASS

- Do not try to talk with me during the class break or after class. We can chat at the start from class as long as you are in your seat. I used to talk a lot during the break and after class, but the pandemic makes this an unsafe practice. I will be very understanding of the difficult situation that some of you are in and will do my best to keep the pace of course appropriate, but you have to help me as well. **See class blackboard website for to do list before class (including reading material, help with software installation, and videos)**

Readings and Problem sets

See the class website for a schedule of assignments and reading material.

Problem sets and Final project to be done in group. See blackboard for instructions

Class Material

- Most Class material is available in <https://github.com/amoreira2/Lectures>
- You should see instructions here https://amoreira2.github.io/quantitativeinvesting/chapters/02/local_install.html on the best way to get access to it
- Problem sets will be available on the Problem Sets tab in blackboard

Course Outline (see Blackboard for the most up to date schedule with all the relevant dates)**Part 0:**

- **Video to install anaconda and check how Jupyter notebook works**
- **Submit “trial problem set” to make sure you understand how problem set submission works and your notebook is working**

Part 1: Getting familiar with Jupyter notebook

- Introduction to Python
- Jupyter notebook basics

Part 2: Python basics

- Python's primitive types
- boolean operators and comparison operators
- conditional statements
- functions and methods
- Building functions
- Getting help
- Basic data structures
- Dealing with packages/libraries
- Numerical programming
- Visualization
- Running a regression
- flow control (e.g. for loops)