

RUTGERS UNIVERSITY  
School of Business – Camden

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**FinTech and Financial Innovations**

53:390:580 online Summer 2022

Tuesday to Monday

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**COURSE DESCRIPTION:**

This course explores recent innovations in Financial and related Technologies (FinTech). It provides a survey of the most important new financial technologies that are set to revolutionize not only the world of finance but business in general. Such technologies combine traditional business practices with the computational power of modern processors to facilitate the achievement of highly customized business objectives. The course covers the rise of big data analytics (A.I and Machine Learning) as well as the rise of automated investment advisers and algorithmic trading. We also discuss the role of the Blockchain in cryptocurrencies, such as Bitcoin and Ethereum, and their implications for Investment and general management practice.

**REQUIRED TEXTBOOK:**

1. NONE. Since the topic is so new, there are no appropriate textbooks on the market as of 2022. We will instead rely on weekly readings assembled from various sources. All materials will be provided free of charge.

**RECOMMENDED MATERIALS:**

*NOTE: The following are NOT required, but recommended.*

You should read The Wall Street Journal as it is a premier source of most business and finance related news. Substantial student discounts are available at the WSJ student rates subscription page. I will refer periodically to various WSJ content. Although not required, a subscription to The Wall Street Journal is highly recommended. Your future boss and colleagues are all reading it NOW!

You should also read something with a broader and more global focus. I strongly recommend The Economist, which also offers substantial student subscriptions. The Financial Times is another excellent source of finance news. Visit the Financial Times Education contact page and contact them regarding a student subscription for the semester, if not for the year.

**TEACHING METHODS:**

The material presented in the textbook provides the essential backbone of the course. However, much of your time will be devoted to activities that flesh out the material presented in the text. For this teaching approach to work, it is necessary that you read all textbook material assigned for a class *before* taking

the first assignment. Reading all assigned material should be your first priority, doing all other assigned homework on-time, consulting with the professor immediately when you need help, and class participation via discussion forum are strongly recommended actions for the student to excel in this course.

### **Syllabus updates and other course communication:**

All changes and announcements will be made through the course website on Canvas. If you do not use your rutgers.edu email domain for your email address, please insure that you forward messages to whatever email address you use. Handouts will be post on Canvas from time-to-time. You are responsible for keeping up with this course. Be sure to check the course web site on a daily basis.

### **COURSE GOALS AND OBJECTIVES:**

The finance area at the School of Business – Camden has adopted the following Learning Goals and Objectives for Finance 580.

By the completion of this course, you will be able to:

- Identify and explain the reasons for disrupting the traditional investment practice.
- Identify and explain the rise of Big Data and its analytical tools: Artificial Intelligence and Machine Learning.
- Identify and explain the practice of Data Science and its role in modern finance.
- Identify, explain and apply the techniques of Natural Language Processing (NLP) and text mining.
- Identify and explain the phenomenon of RoboAdvising.
- Identify and explain how algorithmic trading is different from traditional trading.
- Identify and explain how a Blockchain works
- Identify and explain the rise of cryptocurrencies such as Bitcoin.
- Identify and explain the rise of Decentralized Finance (DeFi)

### **STUDENTS WITH LEARNING DISABILITIES**

Students who are seeking an accommodation because of a disability are directed to the website <http://learn.camden.rutgers.edu/disability/disabilities.html> or they can contact the Camden campus Disability Coordinator, Mr. Tim Pure at 856-225-6442, Armitage Hall Room 362. The email address is [disabilityservices@camden.rutgers.edu](mailto:disabilityservices@camden.rutgers.edu). All contact will be considered confidential.

### **COURSE REQUIREMENTS:**

#### **1. EXAMS:**

There will be only one exam- the Final. It will consist of questions designed to test understanding of the facts and concepts of the course and how they can be applied to practical investment problems. All problems will be based on the assigned required readings.

#### **Academic Integrity:**

“Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are only legitimate when the assistance of others is explicitly

acknowledged...The principles of academic integrity entail simple standards of honesty and truth. Each member of the university has a responsibility to uphold the standards of the community and to take action when others violate them...Students are responsible for knowing what the standards are and for adhering to them. Students should also bring any violations of which they are aware to the attention of their instructors.”<sup>1</sup>

Students are expected to know, understand and adhere to the policies on academic integrity outlined above. Procedures for violation of these policies outlined in the University Code of Academic Conduct will be followed.

### **Exam Make-up Policy:**

If, for a university approved reason, you cannot take an exam at the scheduled time you must give the professor written notice at least one week in advance so that other arrangements can be made. If the situation does not allow for advance notification (for example, emergency hospitalization), contact the professor as soon as possible after a missed exam. Make-up exams for non-university approved reasons are not guaranteed. I reserve the right to request written documentation to support your absence (such as a doctor’s note, an obituary, or military orders).

### **2. PARTICIPATION:**

It is expected that you will contribute often to class discussions. Your online forum comments should be thoughtful and should reflect your careful reading of the assigned course material.

### **3. HOMEWORK ASSIGNMENTS (Quizzes):**

Quizzes are difficult and are based exclusively on the content of the required assigned readings. You should carefully read the assigned materials before attempting to take the quiz.

### **GRADING:**

For the assignment of final grades, the course requirements will be weighted approximately as follows:

Final exam .....	25%
Weekly Quizzes.....	50%
Online Discussions.....	25%
90-100% .....	A
85-89% .....	B+
80-84% .....	B
75-79% .....	C+
70-74% .....	C
Less than 70% .....	F

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<sup>1</sup> Rutgers University Code of Academic Conduct, taken from the Student Advising Handbook - <http://camden-sbc.rutgers.edu/CurrentStudents/students/advising.pdf>.