

**Finance**  
**Course Number: 33:390:435 Course**  
**Title: Real Estate Finance and**  
**Mortgage**

## **COURSE DESCRIPTION**

The central objective of this course is to provide you with the background and tools necessary to analyze value, risk, and return in property markets.

The initial emphasis of the course is on mortgage finance and is dedicated to providing an understanding mortgage structure and mechanics in both residential and commercial markets. The focus then shifts to the evaluation of investment in property markets from the perspective of an institutional investor. This is accomplished by developing projections of future cash flows from a given property and using them to construct measures of value, risk and return and consider their sensitivity to changes in base assumptions. Extensions include tax issues, the relationship between value, returns and leverage, structuring the distribution of cash flows in partnership agreements and/or real options. Finally, the course provides extensive training and certification in ARGUS, a real estate industry-standard software package used for entering lease information and analyzing risk and return in property markets.

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## **COURSE MATERIALS**

There is one primary text for the course, the ARGUS Enterprise 11 Certification Manual which will be distributed in class before ARGUS training begins. Otherwise, I will teach using notes and in-class problem sets

Slides, announcements and supplemental materials will be posted on Canvas

([canvas.rutgers.edu](https://canvas.rutgers.edu)) which will serve as central location for all information concerning the course. It is expected that you will check the course page on Canvas on a daily basis for updated information and announcements.

In addition to the course materials listed previously, you are required to have a financial calculator and to be familiar with the use of a spreadsheet package such as Excel. A good, and relatively inexpensive financial calculator is the HP 10bII+. You are allowed to use any calculator (except a cell phone calculator) but I will be doing examples in class with the HP 10bII+.

## LEARNING GOALS AND OBJECTIVES

This course is designed to help students (1) develop skills and knowledge in applied corporate finance and

(2) demonstrate their ability to use portfolio theory to analyze the risk and return associated with investment in real property.

In this course, students will:

- ...acquire a thorough understanding of both residential and commercial mortgage finance. (1)
- ...acquire a working understanding of commercial lease terms and conditions and the ability to determine the revenues and expenses corresponding to the space that is subject to the lease. (1)
- ...understand the relationship between capitalization rates and returns on investment and use capitalization rates to estimate the value of property for a given net income. (1), (2)
- ...develop projections of the future cash flows for a given property to determine the value and return generated by the property. (1), (2)
- ...quantify risks associated with an investment using investment performance ratios and understanding the sensitivity of return to changes in base assumptions. (2)
- ...understand the relationship between leverage, risk and the return to equity. (1), (2)
- ...consider the risks and incentives associated with financing alternatives to simple debt and equity. (2)
- ...become proficient in the use of ARGUS, an industry-standard software package. (1)

Students will develop these skills and knowledge through homework assignments, the analysis of cases and exams. In- and out-of-class assignments will serve as the basis for the developing the basic skills and concepts that are at the core of applied corporate finance and exams will provide an opportunity for students to demonstrate this knowledge.

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## PREREQUISITES

Success in this course requires a solid understanding of the basic tools of finance. The formal prerequisite for this course is satisfied by completing any one of the following three courses: Finance (29:390:329), Financial Economics (21:220:439), or Finance for Entrepreneurs and Small Businesses (29:382:203). A quick review of fixed-income analysis will take place during the first week of the course in order to provide a common foundation for the material that will follow.

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## ACADEMIC INTEGRITY

*I do NOT tolerate cheating.* Students are responsible for understanding the RU Academic Integrity Policy (<http://academicintegrity.rutgers.edu/>)

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, “On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment.” I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See [business.rutgers.edu/ai](http://business.rutgers.edu/ai) for more details.

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## **ATTENDANCE AND PREPARATION POLICY**

Regular attendance is vital to success in this course. If you must miss a class, it is your responsibility to find out what material was covered in class during which you were absent and to understand that material prior to the next lecture. Note that there are 7 quizzes and 3 midterm exams throughout the course.

If I am to be absent, my department chair or I will send you notice via email and Canvas as far in advance as possible. For weather emergencies, consult the campus home page.

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## **EXAM DATES AND POLICIES**

There are 3 exams in this course:

Midterm: in-class, closed book.

Midterm: 2-part exam on underwriting (closed book) and ARGUS (laptop computer). Final: Finals week, closed book.

There will also be up to 10 small 20-minute, 5-question quizzes except (a) on days when a midterm is administered, (b) in the weeks when we are working on ARGUS and (c) at instructor discretion. The point of the quizzes is to make sure that students keep up-to-date on the material, and do not try to “cram” before the midterms.

The following rules apply during exams and quizzes:

- If you have a disability that influences testing procedures, provide me an official letter from the Office of Disability Services at the start of the semester.
  - No cell phones or other electronics except your business calculator are allowed in the testing room unless stated otherwise.
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## **GRADING POLICY**

The letter grade you receive in the course will be based on your performance on graded homework assignments, exams, case assignments and the successful completion of the ARGUS certification exam as outlined below. If you believe that your exam or case has been graded incorrectly, please bring it to my attention as soon as possible.

- Quiz: The quizzes will count for a total of 20% of your grade. As an example, if there are 5 quizzes, each quiz will count for 4% of your grade.
- Exams: The midterm will be 20% of your grade, the midterm will be 20% of your grade, and the final will be 40% of your grade. If you must miss the exam, notify me as soon as possible before the time of the exam either by phone or email. Anyone missing an exam without such notification will receive no credit for the exam and will not be given a make-up.

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## SCHEDULE OF LEARNING OUTCOMES

- Midterm 1 () will cover
  - Review of NPV, how to use your calculator, multi-period returns
  - Residential Mortgages
  - Commercial Mortgage Underwriting and Economics
  - Pooling and Tranching
- Midterm 2 () will cover
- Midterm 1 +
  - Commercial Property Underwriting
  - Underwriting using Excel
- Final (date TBD) will cover
  - Midterm 1 and Midterm 2 +
  - Leverage and the Return on Equity
  - Private Equity

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## SUPPORT SERVICES

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the

Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at [ods.rutgers.edu](http://ods.rutgers.edu).

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email [dsoffice@echo.rutgers.edu](mailto:dsoffice@echo.rutgers.edu)]

[Rutgers University-Newark ODS phone (973)353-5375 or email [ods@newark.rutgers.edu](mailto:ods@newark.rutgers.edu)]

If you are ***pregnant***, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email [jackie.moran@rutgers.edu](mailto:jackie.moran@rutgers.edu)]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu)]

If you seek ***religious accommodations***, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email [DeanofStudents@newark.rutgers.edu](mailto:DeanofStudents@newark.rutgers.edu)]

If you have experienced any form of ***gender or sex-based discrimination or harassment***, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: [https://cm.maxient.com/reportingform.php?RutgersUniv&layout\\_id=7](https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7) . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu). If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email [run.vpva@rutgers.edu](mailto:run.vpva@rutgers.edu)]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu> .

If you are a military **veteran** or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of **mental health** services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of **physical health** services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of **legal** services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to **English as a second language (ESL)** should contact the Program in American Language Studies for supports.

[Rutgers–Newark: [PALS@newark.rutgers.edu](mailto:PALS@newark.rutgers.edu)]

[Rutgers–New Brunswick: [eslpals@english.rutgers.edu](mailto:eslpals@english.rutgers.edu)]

If you are in need of additional **academic assistance**, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>]

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.
- Students must sign, date, and return a statement declaring that they understand this syllabus.]