

L.DeMarco  
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Spring 2018

## Portfolio Theory 220: 415

Rutgers University  
Department of Economics

**Class Hours:** M,Th 9:50 -11:10am

**Office Hours:** Monday 11:30 am – 12:30 pm  
Friday 8-9:15 am and by appointment

**Classroom :** HH-A7

**Office :** NJ Hall 405

### Portfolio Theory 220:415 is an “upper” level elective

Understanding and constructing diversified portfolios are the cornerstone to managing your risk-return relationship as an investor. We start with Modern Portfolio Theory and the concept of mean variance optimization. From here we evaluate, measure and optimize our own portfolios, something that we will all be exposed to in the future. Whether you hope to work in the investment industry or only plan to have a retirement account, the financial markets and portfolio theory will aid you in navigating the seemingly chaotic waters. We will discuss methods to hedge your portfolio in ways diversification lacks and we will conclude with current alternate theories and methods for constructing portfolios outside of Modern Portfolio Theory.

**Prerequisite :** 220: 413 : Financial Economics  
Minimum Grade C

**Text :** No required text

Useful reference: Investments and Portfolio Management By Bodie, Kane and Marcus

**Data analysis tool:** Microsoft Excel

#### Learning Goals:

Upon conclusion students will have researched and practiced:

- Risk-Return relationships among assets
- Modern Portfolio Theory with 2 assets and multi-assets with some matrix algebra
- Difference between Passive and Active Portfolio Management
- Portfolio risk measurement and hedging
- Portfolio performance measurements
- Alternatives to MPT and current portfolio analysis tools and techniques

#### Pedagogy:

This course will employ lectures, supplemental reading and additional online resources, quizzes and *RP* (see *NOTES* page 2)

<b>Grading :</b>	(2) Midterm ( in-class each 25% )	50%	
	(2) 30 minute quizzes ( via Sakai )	15%	
	<b>No make-up quizzes</b>		
	(4) RP Groups of 4	25%	
	Attendance/Participation	10 %	<a href="http://sims.rutgers.edu/ssra">http://sims.rutgers.edu/ssra</a>

**All of our course materials (slides and excels) are for our course use only, redistribution is prohibited and protected.**

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## **Academic Integrity**

*Cheating and Plagiarism will not be tolerated. I will give enough opportunity to earn high grades by yourself there is no need for me to find any cheating or plagiarism of any sort. Dr. Sopher will be notified immediately.*

All quizzes and RP will be completed by their due dates, **no late work to be accepted.**

## **Attendance**

Students are expected to attend all classes. If you expect to miss more than one or two classes because of illness or a family emergency, please use the University absence reporting website <http://sims.rutgers.edu/ssra> to indicate the date and reason for your absence. An email is automatically sent to me.

## **Class Conduct**

It is the expectation of mutual respect throughout the course, not only between instructor and student but between you and your peers.

No recordings/photos/videos are to be taken of our class, you will have access to all materials needed via Sakai and such infringes on the privacy of everyone in the course

## **Sakai**

The quizzes will be administered via our Sakai coursesite module. Any issues taking quizzes via Sakai module will impede your course be aware of this from the start of our course. Discuss with me your issues with this type of testing ASAP. Everything you will need will be available through our Sakai coursesite as well.

## **Communication:**

Primary e-mail: [ldemarco@econ.rutgers.edu](mailto:ldemarco@econ.rutgers.edu)

**E-mails are expected to be professional and proper, only e-mails of this type will be answered.**

## **Missed quizzes/exams:**

A missed quiz will earn a zero points, **no make-up for quizzes.**

A missed exam will earn zero points. Departmental Make-Up Exams will only be given under extraordinary circumstances the first Friday following exam date. Students should check with me before missing an exam to see whether their particular circumstances meet my very limited definition of extraordinary.

## **Notes:**

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- Quizzes and Midterms will be multiple choice, T/F and/or fill in questions that test concept and/or calculation
  - They are to be completed individually
- RP in this course are research and/or practice assignments
  - Groups of 4 or less
  - You will submit your work as well as an accompanying questionnaire via sakai
- Attendance/Participation will include in class and in addition online interaction:
  - (1) Posting 1 article with question each week on our course website
  - (2) Answering at least 1 question/post each week on our course website

**All quizzes and RP will be completed by their due dates, no late work to be accepted.**

**All grades achieved during the semester are finalized by the last day of class.**

**Any RP grades for review must be in writing within 4 days of grade return.**

	<b>TOPICS</b>	<b>CH</b>	<b>RP</b>	<b>Quiz/Mid</b>
Week 1 1/14	Financial Markets, Asset classes, interest rates, Expectation, Variance, Co-Variance, Correlation	<b>Notes</b>		
Week 2 1/21	Return, Risk , Expected Value Criterion , Uncertainty, Expected Utility Hypothesis , risk aversion, risk premium	<b>Notes</b> <i>BKM Ch 6</i>		
Week 3 1/28	Portfolio selection: Mean-Variance Model , Modern Portfolio Theory and 2 asset portfolio	<b>Notes</b> <i>BKM Ch 7</i>	<b>Release</b> <b>RP1</b>	<b>Quiz 1</b>
Week 4 2/4	Continue to a Multi asset portfolio with matrix algebra and scenario testing	<b>Notes</b>		
Week 5 2/11	Passive Management: Index investing and Strategic Asset Allocation	<b>Notes</b>		
Week 6 2/18	..continued Active Management: Tactical Asset Allocation	<b>Notes</b>	<b>Release</b> <b>RP2</b>	
Week 7 2/25	What is the difference between Beta and Alpha? Value at Risk and Expected Shortfall	<b>Notes</b> <i>BKM Ch 5</i>		
Week 8 3/4	Review for exam <b>Midterm 1: Thursday 3/8</b>			<b>Mid 1</b>
Week 9 3/11	<b>Spring break</b>			
Week 10 3/18	CAPM, Jensen's model for portfolios Fama French 3 factor model	<b>Notes</b>		
Week 11 3/25	Portfolio performance Evaluation: risk adjusted returns, portfolio ratios	<b>Notes</b> <i>BKM Ch 24</i>	<b>Release</b> <b>RP3</b>	
Week 12 4/1	Managing portfolio risk with SP500 Futures Managing Interest Rate risk with Eurodollar Futures	<b>Notes</b> <i>BKM Ch 25</i>		
Week 13 4/8	International Diversification <b>Midterm 2 : Thursday 4/12</b>	<i>continued</i>		<b>Mid 2</b>
Week 14 4/15	MPT alternative: Sector Analysis, Top down investment approach and the power of ETFs	<b>Notes</b>	<b>Release</b> <b>RP4</b>	
Week 15 4/22	Individual portfolios, Pensions, Mutual funds and Hedge Funds	<b>notes</b>		<b>Quiz 2</b>
4/30	Conclusion			

**Disclaimer:** We will cover content in this order. The dates of quizzes, midterms and RP are tentative, they can change due to our class meetings. I will discuss in advance before release and due dates. I reserve the right to make any changes to the syllabus.

**Important Dates:**

[Spring 2018 Academic Calendar](#)

**GRADE BRACKETS**

A	$90 \leq x \leq 100$
B+	$85 \leq x < 90$
B	$80 \leq x < 85$
C+	$75 \leq x < 80$
C	$70 \leq x < 75$
D	$60 \leq x < 70$
F	$x < 60$

**Disclaimer:** I reserve the right to curve final grades due to the level of difficulty in the nature of the course. No additional points will be given to grades; the grade brackets will shift to support the curve.

**Student-Wellness Services:**

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**Just In Case Web App**, for a mental health crisis for you are a friend:

<http://codu.co/cee05e>

**Counseling, ADAP & Psychiatric Services (CAPS)**, for non-emergency psychological health issues:

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 [www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

**Violence Prevention & Victim Assistance (VPVA)**

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 [www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

**Disability Services**

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

**Scarlet Listeners**, for confidential peer counseling and referral hotline:

<http://www.scarletlisteners.com/> or call (732) 247-5555