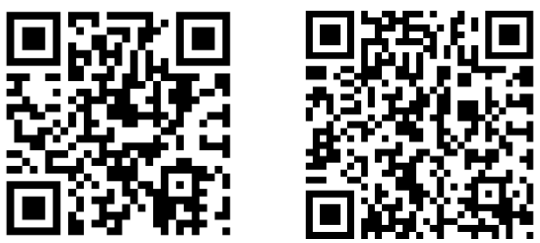




## Portfolio Analysis

FIN414A (CRN:44917)

Spring 2018 (Lectures from 1/17 -5/2)

Instructor:	Paul Yan
Contact Information:	Email: <a href="mailto:yany@canisius.edu">yany@canisius.edu</a> Phone: (716) 888-2604 Office: CT308 (CT stands for Churchill Tower)
Lecture Hours/Location:	MW: 1:00pm-2:20pm @ Old Main 111
Office Hours/Location:	MW: 11:30am-12:30pm Or by appointment @ CT308
Prerequisites:	FIN311 or equivalent
Textbook:	Investments, 10th edition, by Bodie, Kane and Marcus.  <div style="display: flex; justify-content: space-between;"> <div>Course Number</div> <div><b>FIN 414</b></div> </div> <div style="display: flex; justify-content: space-between;"> <div></div> <div>Paul Yan</div> </div> <div style="display: flex; justify-content: space-between;"> <div></div> <div>Canisius College</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>ISBN-13</div> <div>9781308021690</div> </div> <div style="display: flex; justify-content: space-between;"> <div>ISBN-10</div> <div>1308021690</div> </div>
Websites:	<a href="https://d2l.canisius.edu/d2l/home">https://d2l.canisius.edu/d2l/home</a> (for syllabus, data cases, readings, etc.) <a href="http://canisius.edu/~yany/excel">http://canisius.edu/~yany/excel</a> (for learning Excel)
QR codes	
Course Description:	Exploration of portfolio theory from an individual and an institutional view point. Development of appropriate global portfolio strategies for pension and endowment funds, mutual funds, banks, insurance companies and other financial intermediaries. Topic covered includes capital market history and asset allocation, Markowitz diversification, styles of equity portfolio management, management of stock and bond portfolios, and performance evaluation. Provides an introduction to both quantitatively and fundamentally based portfolio management techniques and utilized computer based information systems and analytical tools.
Computational Tool	Microsoft Excel
R software	R is free software which could be downloaded at <a href="http://r-project.org">http://r-project.org</a>
One line R command	> source("http://canisius.edu/~yany/abc.R")

	Note: I will explain the above line during the first lecture.																
Academic Integrity:	Students are expected to know and understand college policies with regard to <a href="#">Academic Integrity Code</a> . Violations of academic integrity will be prosecuted fully. Please note that you are responsible for reporting any instances where other students have violated these policies. Failure to do so will result in penalties as well. If you have any questions about this policy, please see the instructor.																
Attendance Policy:	Attending classes regularly is required. Before-class preparation and in-class participation is an integral part of this course. Students are strongly encouraged to participate in class discussions and ask questions. Students are encouraged to discuss current events relevant to this course or their own experiences. Homework problems are regularly assigned.																
Academic and Accessibility Support Services:	The GRIFF Center for Academic Engagement provides comprehensive programs, tutoring services, and resources to support student academic and career success. If you would like to learn more about academic support, please stop in Old Main 013 or call 716-888-2170. Visit the GRIFF Center webpage at: <a href="http://www.canisius.edu/griff-center/">http://www.canisius.edu/griff-center/</a> . Accessibility Support (716-888-2170), which is located in the Griff Center for Academic Engagement (OM 013), is responsible for arranging appropriate academic accommodations for students with documented disabilities. If anyone in this course falls into this category, please contact Accessibility Support so that an appropriate course of action may be determined. For additional information, see <a href="http://www.canisius.edu/dss/">http://www.canisius.edu/dss/</a>																
Course Level Learning Goals:	Learn basic portfolio theory; understand various performance measures of portfolios, such as mutual funds, know how to download data from various public financial sources, such as Yahoo!Finance, Federal Reserve Banks' data library, Prof. French's data library, be able to use Excel to process data to form various portfolios and construct optimal portfolios and an efficient frontier.																
College, Program and Major Learning Goals:	This course is designed to help students achieve one or more College Core, Business Program and/or Major level learning goals and objectives. You can see the specific College, Program or Major level learning goals and objectives associated with the course from this page on the College website: <a href="http://bit.ly/bcoreLG">http://bit.ly/bcoreLG</a>																
Grade Evaluation:	<table> <tr> <td>Data cases</td> <td>30%</td> </tr> <tr> <td>Midterm</td> <td>20%</td> </tr> <tr> <td>Final exam</td> <td>20%</td> </tr> <tr> <td>Term paper</td> <td>15%</td> </tr> <tr> <td>Term paper presentation</td> <td>5%</td> </tr> <tr> <td>Class participation</td> <td>10%</td> </tr> <tr> <td colspan="2">-----</td> </tr> <tr> <td>Total</td> <td>100%</td> </tr> </table>	Data cases	30%	Midterm	20%	Final exam	20%	Term paper	15%	Term paper presentation	5%	Class participation	10%	-----		Total	100%
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-----																	
Total	100%																
Laptop policy:	Since this course will be taught at a computer lab, students could bring their own laptop.																
Course Schedule:	For the detailed schedule, see below. I reserve the right to change the course schedule throughout the semester. Changes to the schedule will be announced in class or via email.																
Academic calendar	<a href="https://draftcatalog.canisius.edu/undergraduate/academic-calendar/">https://draftcatalog.canisius.edu/undergraduate/academic-calendar/</a>																



## Term paper

Each group could have up to 3 members. After mid-term, a list of potential topics would offered. Each group could choose one of those topics and write a short report (maximum page limit: 15, double space, font of 12). Before start your project, please contact me for an approval of the topic since there should be no duplicate topics.

## Course Schedule:

Week	Date	Contents of the lecture	Notes
1	1/15	<b>Martin Luther King Day (no class)</b>	
	1/17	Self-introduction and administrative information background to the course, Review of basic concepts and related Excel functions <i>Introduction and Chapter 5: Risk, Return and Historical Record</i>	
2	1/22	<i>Chapter 5 (continued)</i>	
	1/24	<i>Chapter 6: Capital Allocation to Risky Assets</i> Review of basic concepts and related Excel functions(cont'd) This includes a discussion of the importance of objectives and constraints confronted by individual and institutional investors and the role of the allocation decision. Selecting investments in the global markets is also discussed.	Data Case #1
3	1/29	<i>Chapter 6 (continued)</i>	Data Case #2
	1/31	<i>Chapter 7: Optimal Risky Portfolios</i> Stock market indices, bond market indices Domestic vs. international, value-weighted, equal-weighted, price weighted, correlation among market indices	
4	2/5	<i>Chapter 7 (continued)</i>	Data Case #3
	2/7	<i>Chapter 8: Index Models</i> Coverage of the assumptions and measurement techniques underpinning Markowitz diversification, as well as international diversification. The role of correlation in the determination of portfolio risk is discussed along with the efficient frontier.	
5	2/12	<i>Chapter 8 (continued)</i>	Data Case #4
	2/14	<i>Chapter 9: The Capital Asset Pricing Models</i> An introduction to capital market theory is priced with emphasis on determining optimal portfolios and the relationship to relevant risk in asset pricing models such as the CAPM. A discussion of the arbitrage pricing theory (APT) and multifactor models is also provided.	
6	2/19	<b>Presidents' Day Break (no class)</b>	
	2/21	<i>Chapter 9 (continued)</i>	
7	2/26	<i>Chapter 10: APT and Multifactor Models of Risk the Return</i>	Data Case #5
	2/28	Approaches to passive and active equity portfolio strategies are introduced. Coverage of topics including style analysis, equity asset allocation strategies, equity portfolio performance measures, such as Sharpe, Treynor, and Jensen measures, and tracking error.	
8	3/5	Before mid-term review	
	3/7	<b>Midterm</b>	

Week	Date	Contents of the lecture	Files
9	3/12 3/14	Chapter 11: The efficient Market Hypothesis Difference between mutual funds, hedge funds and private equity firms. Coverage of hedge fund styles and strategies.	
10	3/19 3/21	Chapter 12: Behavioral Finance and Technical Analysis	Data Case #6?
11	3/26 <b>3/28</b>	<i>Chapter 13: Empirical Evidence on Security Returns</i> <b>Easter &amp; Spring Recess Begins - No Classes</b>	
12	<b>4/2</b> <b>4/4</b>	<b>Easter &amp; Spring Recess</b> <b>Easter &amp; Spring Recess</b>	
13	4/9 4/11	Chapter 24: Portfolio Performance Evaluation Variety of portfolio performance measures (not covered in a previous session), such as Information ratio, attribution analysis and other measures, are covered, such as Sharpe ratio, Jensen alpha,	
14	4/16 4/18	Chapter 26, Hedge Funds Institutional, regulatory and ethical attributes pertinent to the asset management industry are discussed, along with AIMRs “Code of Ethics and Standards of Professional Conduct.”	
15	4/23 4/25	Chapter 4: Mutual funds Student presentation	
16	4/30 5/2	Student presentation Student presentation	
17	<b>5/7?</b>	<b>Final</b>	

## SELECTED JOURNAL ARTICLES

- Ambachtsheer, K. 2005, Beyond Portfolio Theory: The Next Frontier, *Financial Analysts Journal*, 29-33.  
[http://www.kpa-advisory.com/pdf\\_documents/faj\\_jf05\\_ambachtsheer.pdf](http://www.kpa-advisory.com/pdf_documents/faj_jf05_ambachtsheer.pdf)
- Berk, Jonathan, 2005 "Five Myths of Active Portfolio Management," *Journal of Portfolio Management*, Vol. 31, pp. 27-31.  
[http://faculty.chicagobooth.edu/john.cochrane/teaching/35150\\_advanced\\_investments/Berk\\_myth.pdf](http://faculty.chicagobooth.edu/john.cochrane/teaching/35150_advanced_investments/Berk_myth.pdf)
- Brad M. Barber Yi-Tsung Lee Yu-Jane Liu Terrance Odean, 2008, Just How Much Do Individual Investors Lose by Trading? *The Review of Financial Studies* 22, 609-632.  
[http://faculty.haas.berkeley.edu/odean/papers%20current%20versions/justhowmuchdoindividualinvestorslose\\_rfs\\_2009.pdf](http://faculty.haas.berkeley.edu/odean/papers%20current%20versions/justhowmuchdoindividualinvestorslose_rfs_2009.pdf)
- Carhart, Mark M., 1997, On Persistence in Mutual Fund Performance, *Journal of Finance* 52,  
[http://faculty.chicagobooth.edu/john.cochrane/teaching/35150\\_advanced\\_investments/Carhart\\_funds\\_jf.pdf](http://faculty.chicagobooth.edu/john.cochrane/teaching/35150_advanced_investments/Carhart_funds_jf.pdf) 57-82.
- Cochrane, John, 2009, Note explaining Fama and French  
[http://faculty.chicagobooth.edu/john.cochrane/teaching/35150\\_advanced\\_investments/cochrane\\_fama\\_french\\_mutual\\_fund\\_notes.pdf](http://faculty.chicagobooth.edu/john.cochrane/teaching/35150_advanced_investments/cochrane_fama_french_mutual_fund_notes.pdf)
- Fama, Eugene F. and Kenneth R. French, 2010, Luck versus Skill in the Cross-Section of Mutual Fund Returns, *Journal of Finance* 65, 1915-1947.  
[http://faculty.chicagobooth.edu/john.cochrane/teaching/35150\\_advanced\\_investments/Luck%20versus%20Skill%20in%20the%20Cross%20Section%20of%20Mutual%20Fund%20Returns.pdf](http://faculty.chicagobooth.edu/john.cochrane/teaching/35150_advanced_investments/Luck%20versus%20Skill%20in%20the%20Cross%20Section%20of%20Mutual%20Fund%20Returns.pdf)
- Insider Monkey, Warren Buffett's alpha,  
<http://www.insidermonkey.com/blog/chart-of-the-day-warren-buffett%E2%80%99s-alpha-1977-2009-395>
- Insider Monkey, Warren Buffett's style drift  
<http://www.insidermonkey.com/blog/warren-buffett%E2%80%99s-style-drift-411/>
- Murphy, Eric A., Inefficiencies of Portable Alpha Models (July 2006). Available at SSRN:  
<http://ssrn.com/abstract=921760>
- Sharpe, William, Mutual Fund Performance Measures, Factor Models, and Fund Style and Selection, Stanford University, <http://www.stanford.edu/~wfsarpe/art/mfpm/mfpm.htm>
- Video
- CAPM: single factor model <http://www.youtube.com/watch?v=M39LPrz2gr8> (27m 23s)
- Portfolio optimization : <http://www.youtube.com/watch?v=FZyAXP4syD8> (19m 22s)

## Appendix A: one page instruction

To download and install R (free computational software), we have the following 5 steps.

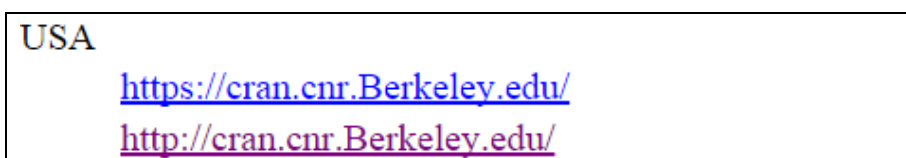
Step 1: Go to <http://www.r-project.org>



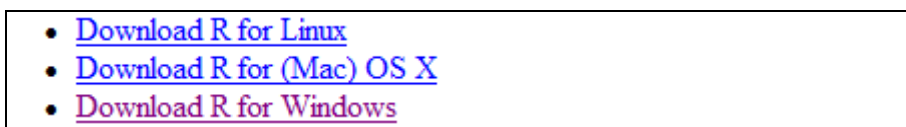
Step 2: Click "CRAN" under "Download" (left-hand side)



Step 3: Choose a mirror address



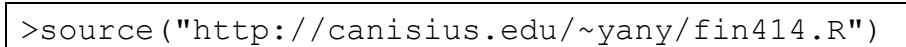
Step 4: Choose appropriate software (PC, Mac)



Step 5: Click "base". For example, for Windows, we have the following result.



After launch R, just issue the following one line R codes.



Note that R is case-sensitive.