FIN4115 Applied Portfolio Management: Security Analysis and Valuation
SEM 1, 2015 – Course Syllabus (Version 1)

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Section: Tuesday 3pm – 6pm, CAMRI Lab, 3rd Floor, BIZ 1 (MRB)
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Course Description: This Advanced Seminar in Portfolio Management module will serve as a comprehensive real world examination of the quantitative, fundamental, behavioral, and model-based approaches utilized for performing security valuation & portfolio management in the financial industry. Major topics covered include Relative Valuation, Multifactor Models, Liquidity and Value Enhancement Strategies. Lectures will involve frequent interaction with practitioners from the industry, hands-on lab projects, and real-life examples. Students are also expected to research, write, and publish equity investment reports (preferably on Asian companies with limited research analyst coverage) and/or portfolio investment strategies. These individual equity reports and a presentation in the form of a team-based stock pitch could subsequently be presented by the students to a panel of senior members from the Singapore investment management industry so as to showcase & ascertain students' equity research and stock-picking skills. There may also be an opportunity to put your skills to the test and manage real money (i.e., a live CAMRI Student Managed Fund) during the course of the semester. Students will be divided into sector teams and their fundamental analysis & recommendations (appropriately formatted) will be incorporated into the CAMRI Student Managed Fund portfolio optimization process. This course is suitable for students interested in a career as a financial analyst (both on the buy-side and sell-side), or as a portfolio manager.

1. **Multifactor Models (MFM) in Portfolio Management**
    - Economic rationale for MFM
    - Types of models – APT, Relative Valuation, Fundamental
    - Diversification of themes
    - Testing for efficacy, monotonicity, transitions, downside risk

2. **Behavioral Finance**
    - Anchoring, over and under-reaction, overconfidence, loss aversion
    - Herding
    - Mental accounting
    - Confirmation and Hindsight Bias

3. **Liquidity and Asset Prices**
    - How we define and measure liquidity
    - How liquidity affects valuation of asset prices
    - Flight to liquidity versus flight to quality

4. **Hedge funds and Alternative Investments**
    - Investment strategies

- Performance and risk management, particularly evaluating downside risk

5. **Reading Materials**

- Investment Valuation (Revised and Updated), by Aswath Damodaran (AD), 3rd University Ed., Wiley Finance, 2012. This text serves as the primary reference guide.
- "Worry-free Inflation-Indexing for Sovereigns: How Governments Can Effectively Deliver Inflation-Indexed Returns to Their Citizens and Retirees," (Z. Bodie, J. Cherian and W.K. Chua), Life-cycle Investing: Financial Education and Consumer Protection (CFA Institute), The Research Foundation of Chartered Financial Analysts (CFA) Institute Publications Series, 2012, Z. Bodie, L.B. Siegel and L. Stanton (Editors)
- "A Tail of Two Cities: On the Downside Risk and Loss Profile of Asian and North American Hedge Funds," 2014, (J. Cherian, C. Kon and W. Weng), CAMRI Working Paper, NUS Business School (SSRN Abstract ID 2520354; http://ssrn.com/abstract=2520354)
- "Liquidity and Portfolio Management," (J. Cherian, S. Mahanti and M. Subrahmanyam), March 2012, CAMRI Working Paper, NUS Business School
- CAMRI's guide for new users of Bloomberg is available by **clicking here.** More **Bloomberg resources** are available here for you to download
- **Barra resources** are available for you to download (password-protected). You can also view the **Barra Training Video.** Lastly, click here for a **CAMRI-developed Guide to Barra Aegis Portfolio Manager** and a **CAMRI-developed Guide to Barra Aegis Performance Analyst**
- The course will also have my overheads & various current articles distributed via IVLE.

Learning Outcomes

- In-depth knowledge of distinct security valuation approaches
- Methodologies & models used in theory and in practice - Relative Valuation, Multifactor Models, and Value Enhancement Strategies, Behavioral Finance.
- How liquidity affects valuation
- Ability to value various assets and stochastic cash flows related to the firm (decision-making under conditions of uncertainty)
- Hands-on computational finance, risk & portfolio management, and trading abilities

Students are expected to:

1. Research, write, and publish investment reports (preferably on companies with limited research analyst coverage) using both quantitative and fundamental techniques
2. Perform live & backtested portfolio investment strategies to develop equity research and stock-picking skills using financial applications such as Bloomberg and Barra
3. Perform portfolio optimization and risk management routines and analysis
4. Explore the latest thinking in investment management systems and processes

CAMRI Lab: Located at Level 3 of BIZ 1 (MRB), the CAMRI Investment Management & Trading Lab enhances students' portfolio research & management experience and activity. The Lab has 31 student workstations + 1 Instructor worskstation, Bloomberg live feeds, live financial data tickers, investment and risk management software modules, and various other trading and portfolio management software applications. The aim is to enable NUS Business School students to have first-hand experience and training with the best tools available to the professional investment community, and as a result, best prepare them for the investments, financial, and wealth management job markets. Financial Software & Datasets available in the CAMRI Lab include: **Bloomberg** and **Barra** installed on all the 32 PCs. (**Bold** indicates students should have acquired deep knowledge of these software by semester's end.) For the weblinks and downloadable training materials on the aforementioned software, please visit:

SMF Website: http://bschool.nus.edu/CAMRI/StudentManagedFund.aspx

NUS Recess Week is from September 19 – 27, 2015

The Midterm Quiz is on 27 October 2015. There is no Final Exam in this class.

GUEST SPEAKERS: We will have numerous guest speakers from the portfolio management, trading, asset allocation, external manager selection, back office operations and private equity industry sharing with us what their average day is like.

Grading:

Quantity	Type	Points
1	Midterm Quiz (Oct 27th – in class)	40
1 1 1	Case Fundamental Equity Research Report 1 Fundamental Equity Research Report 2	10 10 10
1	Class Participation	30
	TOTAL	100

Also visit past Student Equity & Trading Reports available at the CAMRI website:

http://bschool.nus.edu.sg/ResearchPublications/ResearchCentres/CAMRI/StudentEquityReports.aspx

Potential HBS Cases:

1. Dimensional Fund Advisors, 2002 – Case No: 9-203-026
2. Smith Breeden Associates: The Equity Plus Fund (A) – Case No: 9-297-089

APPENDIX A

ACADEMIC HONESTY & PLAGIARISM – A WORD FROM YOUR SPONSOR

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is 'the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. **In case of any doubts, you should consult your instructor.**

Additional guidance is available at:

http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct

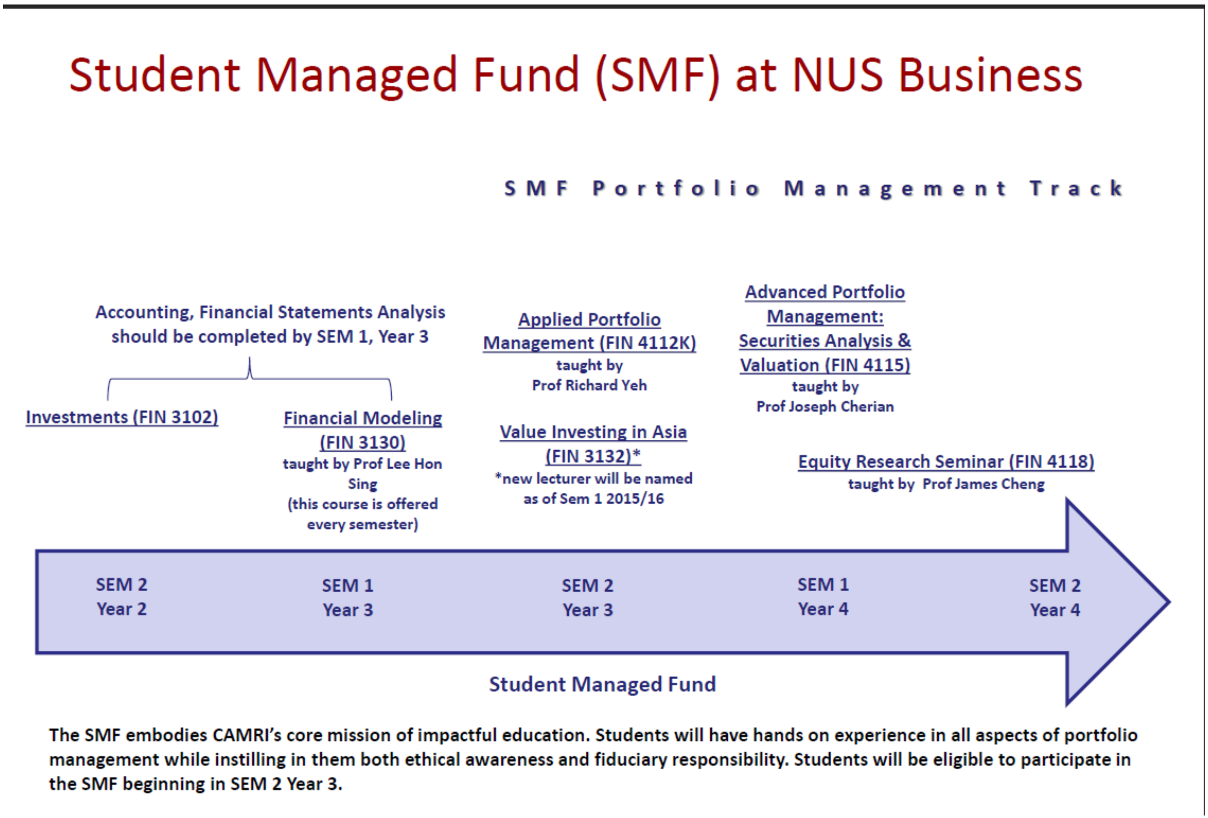
Online Module on Plagiarism:

http://emodule.nus.edu.sg/ac/

APPENDIX B – SMF Track

All students are encouraged to also take the following courses in SEMS 1 or 2, which is part of the **Student Managed Fund Track** at CAMRI and taught by former senior fund managers, chief investment officers and/or captains of the investments industry. They are now adjunct professors at CAMRI:

CAMRI-proposed BBA classes if you are interested to find a job in the asset management industry!



APPENDIX C – CAMRI E-Resume Book (SMF Track)

CAMRI will be disseminating an SMF e-resume book for BBA Honours students who will graduate in December 2015 or May 2016 to our partners: IMAS, AIMA, CFA Singapore, CAMRI Board Members, etc., around November.

Those who are eligible, please format your resumes to the BBA Honours template, which can be obtained from NUS Biz Career Services Office (CSO). For the Dec 2015 graduates, please explicitly list all your past and current SMF Track classes taken in the CAMRI Lab. For May 2015 graduates, please list all your past and current SMF Track classes, and your intended SMF Track classes in SEM 2 (Jan – May 2016). And for all students, please state if you are familiar with Bloomberg, Barra, are sitting for any CFA or CAIA exams, have student CP (FSP) experiences and awards. The Student Managed Fund Track modules can be found **here**. Also students should take the mock interview sessions offered from CSO.

DATED: 7 July 2015

Those of you who have done some or all of the following courses as part of the **Student Managed Fund Track** at CAMRI should state this explicitly in your CV. Example, "**Student Managed Fund Track** courses taken at CAMRI":

1. Module Code: FIN3130

   Module Title: Financial Modelling – PROF LEE HON SING

2. Module Code: FIN3132

   Module Title: Value Investing In Asia – PROF ROB LEWIS

3. Module Code: FIN4112K

   Module Title: Applied Portfolio Management Techniques – PROF RICHARD YEH

4. ETC.

SAMPLES OF INFORMATION YOUR CV SHOULD CONTAIN:

1. CAMRI Student Managed Fund Track Courses Completed:

   a. FIN3130: Financial Modelling by Prof Lee Hon Sing
   b. FIN3132: Value Investing In Asia by Prof Rob Lewis
   c. FIN4112: Applied Portfolio Management Techniques by Prof Richard Yeh
   d. FIN4115: Advanced Portfolio Management by Prof Joe Cherian

2. Awarded CAMRI/CAIA Scholarship to take CAIA Level 1 Examination in March 2016

3. Completed CFA Level 1 – or – Taking CFA Level 1 Examination in December 2015

4. Computer Skills: Bloomberg, MSCI Barra, R, Stata, Etc. Etc.

DATED: 7 July 2015