



THE UNIVERSITY OF
NEW SOUTH WALES
SYDNEY • 2052 • AUSTRALIA

SCHOOL OF BANKING & FINANCE

FINS3642 STRATEGIES FOR INVESTMENT MANAGEMENT Course Outline for Session 2, 2004

DESCRIPTION

This course delivers the theory and the quantitative tools that are necessary for developing investment management strategies. The focus of the course is on active rather than passive asset management. To this end, we develop the fundamental concepts of asset valuation in a world with time-varying risk and risk premiums. We focus on the most recent advances in quantitative approaches to risk modelling, forecasting as well as portfolio construction and evaluation techniques. The aim of the course is to provide the student with a practitioner-orientated view of asset management where concern is based more on active return and risk, which is that component of return and risk that is uncorrelated to the benchmark, rather than just total return and risk. The focus then is on then on the construction and management of portfolio with a view to outperform what is commonly termed the benchmark portfolio.

To do this we develop a methodological, quantitative approach to the active management process. This begins by understanding the parameters which define the active management objective: active risk and return. Next, the modeling and forecasting methodology is developed in order to transform signals about assets and the market into a forecast about expected risks and returns. These inputs are then implemented in forming an optimal portfolio that attempts to ensure the investment objectives are met at minimum cost. Finally portfolio analysis techniques are developed in order to provide insight into the performance of the portfolio. This framework in turn also allows us to develop trading and tactical asset allocation strategies where short term changes in investment weights can capture targets of opportunities (which includes market or benchmark timing). The course makes extensive use of computer spreadsheets and modelling to form and manage these portfolios and investment strategies.

PREREQUISITES AND ASSUMED KNOWLEDGE

It is the responsibility of the student to ensure that the prerequisites have been met before commencing this course. These are: **FINS3640 Investment Management Modelling**. In particular I expect you to have a good understanding of concepts in finance, asset valuation techniques and a good grasp of basic mathematical and statistical concepts including matrix algebra, probability theory and statistics. **Knowledge of regression analysis is essential**. Students are expected to be familiar with Excel in order to construct, analyse and manage their investment portfolios. The course will also make use of VBA in streamlining many operations in excel as well as adopting other programming languages such as MATLAB. Students will also be expected to source a range of data including company specific (eg P/E

ratios) as well macroeconomic/market wide information (eg interest rates, share price indices) necessary to implement their portfolio strategies. A range of databases will be made available to students during the course.

CLASSES (refer to website for last minute changes in time and location)

Course Number	Day	Lecture / Computing	Start-Finish
3268	Monday	ME 503 / QUAD Lab 10	11:00-14:00

LECTURER IN CHARGE

	Email	Office	Telephone	Consultation hours
Dr.Ron Guido	r.guido@unsw.edu.au	QUAD 3063	9385-5862	Thu 16:00 -18:00

ASSESSMENT (Tentative)

Assessment will be based on a mixture of individual and group work.

Assignment 1	20%	Due in Class in Week 5
Assignment 2	15%	Due in class in Week 14
Case Study/Test	15%	Due in Class in Week 8
Major Project	40%	Due in class in Week 13, Presentations held in Weeks 13 and 14
Class Participation/ Presentation	10%	A combination of class involvement and the project presentation
Total	100%	

Students are expected to form into groups of no more than 3 for Assignments 1 and 2 and have the option of working individually. The Case Study must be undertaken individually.

The Project will entail developing a proposal for managing a portfolio of stocks or asset classes in a particular investment style or the development of a trading strategy. The report and presentation need to convince potential investors that your strategies will work and that you have analysis and skills to successfully execute them. The project submission for assessment will include a PowerPoint presentation that will be presented in class. Each group, of no more than 4 students, is required to make a presentation lasting 10-20 minutes to the class. All students must attend the class presentations to be held in the final weeks of session, and are expected to be involved in group discussions following each presentation. Each group member is required to present, and their presentation along with class participation over the entire course will count toward 10% of the final mark. In addition to the presentation, students are required to submit a written report roughly 10-20 pages in length as well as any excel files or electronic files displaying the quantitative work which backs up the results presented. More details will be given as the semester progresses.

Failure To Sit Examination And Late Assignments

Students should notify employers of the requirement to attend examinations. If you miss the mid-session exam (for any reason - employment, sickness, timetable clashes etc.), then in

exceptional circumstances you may be permitted to sit the missed section at a future date when the school offers supplementary examinations. You should talk with the lecturer about this beforehand if you are in doubt. If you are enrolled in class, you are expected to take scheduled examinations. Failure to show does not automatically lead to reassessment.

Late assignments will attract a penalty of 10% per day overdue.

REQUIRED TEXT AND READINGS

Grinold, R. and Kahn, S. (1999), *Active Portfolio Management: A Quantitative Approach to Providing Superior Returns and Controlling Risk*, Second Edition, McGraw Hill.

Other Recommended Texts (Available in the Library)

Zimmermann, H, Drobetz, W and P. Oertmann (2003), *Global Asset Allocation, New Methods and Applications*, Wiley Finance.

Oberuc, R.E., (2004), *Dynamic Portfolio Theory and Management*, McGraw Hill.

Jackson, M. and M Staunton, (2001), *Advanced Modelling in Finance using Excel and VBA*, Wiley Finance.

Lecture notes and supplementary material.

To be made available in class and via webCT:

<http://webct.edtec.unsw.edu.au>

COURSE FORMAT AND OUTLINE (Tentative)

The course will be presented as a combination of lectures and computer laboratories. The computer laboratories held in class time aim to give students the opportunity to learn how to solve problems in relation to lecture material, as well as the problems encountered in the assignments. The tentative outline presented below is a summary of the topics likely to be encountered in the course; minor adjustments to the course may result during the session.

- **Week 1: Introduction and Overview**
- **Week 2: The Active Management Framework**
- **Week 3: Risk and Return Analytics**
- **Weeks 4 to 6: Developing Short Term Forecasting Models**
- **Week 7: Computer Lab: Model Building**

- **Week 8: Forecasting Techniques Introduction**
- **Week 9: Advanced Forecasting and Introduction to Advanced Strategies**
- **Week 10: Advanced Investment Strategies**
- **Week 11: Advanced Investment Strategies II and Introduction to Performance Analysis**
- **Week 12: Performance Analysis and Attribution**
- **Week 13: Lab Work**
- **Week 14: Project Presentations**

INFORMATION CONCERNING STUDENT CONDUCT & RESPONSIBILITIES

Students should be aware of general university, faculty and school rules that are discussed in detail in the UNSW Calendar.

SPECIAL CONSIDERATION

Attention is drawn to the following extract from the University of New South Wales Calendar “Procedures”:

“Students who believe that their performance in a subject, either during session or in an examination, has been adversely affected by sickness or any other reason should inform the Registrar and apply for special consideration in the determination of their standing. The application must be made on the ‘Application for Special Consideration’ form available from the Student Centre. This application explains the specific information the University requires in order to make a decision.

Such requests should be lodged as soon as practicable after the occurrence and in any event no more than three days after the final examination in a subject.”

A photocopy of all material supporting an application for special consideration, as lodged with the Registrar, must also be provided to the Lecturer-in-charge within three (3) days of any event for which special consideration is sought.

Students should be aware that ‘minor’ ailments are not eligible grounds for special consideration. Any unsubstantiated request for special consideration will be considered to be ‘minor’.

Students are expected to complete their work in a timely manner so that an illness in the last few days will not jeopardise the submission of their assignment. Such illness will not constitute grounds for special consideration.

Education Development Unit

Additional learning support, tailored to the needs of FCE students, is available from the Education Development Unit (EDU) in the Faculty. The EDU offers a range of services for FCE students including:

- o Academic skills workshops run throughout the session;
- o Printed and on-line study skills resources e.g. referencing guide, report writing and exam preparation;
- o A drop-in resource centre containing books and audio visual material that can be borrowed;
- o A limited consultation service for students with individual or small group learning needs.

More information about the EDU services including on-line resources, workshop details and consultation request forms are available from the EDU website.

Contacts and location:

EDU Web: <http://education.fce.unsw.edu.au>

EDU Location: Room 2039, Level 2 Quadrangle Building

EDU services are free and confidential and are available to students of the Faculty of Commerce and Economics.

Other UNSW support

In addition to the EDU services, the UNSW Learning Centre provides academic skills support services for students. The Learning Centre is located on Level 2 of the Library and can be contacted by Phone: 9385 3890 or through their website: <http://www.lc.unsw.edu.au/>. Students experiencing problems of an academic or personal nature are encouraged to contact the Counselling Service at UNSW. This service is free and confidential and run by professional counsellors. The Counselling Service is located on Level 2, Quadrangle East Wing, and can be contacted on 9385 541

PLAGIARISM RULES OF THE UNIVERSITY

The FCE site with comprehensive information about the university policy on plagiarism is: http://www/fec.unsw.edu.au/current_students/responsibilities.shtm1#misconduct
