FINS5517
APPLIED PORTFOLIO MANAGEMENT AND MODELLING

Course Outline
Semester 1, 2016

Part A: Course-Specific Information
Part B: Key Policies, Student Responsibilities and Support
NOTICE

The material distributed in this course is in the nature of general comment only and is not advice on any particular matter. No one should act on the basis of anything contained in the course material without taking appropriate professional advice upon the particular circumstances. The Publisher, the Editors and the Authors do not accept any responsibility for the consequences of any action taken or omitted to be taken by any person, whether an enrolled student or not, as a consequence of anything contained in or omitted from the course material.
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PART A: COURSE-SPECIFIC INFORMATION

1 STAFF CONTACT DETAILS

Lecturer-in-charge: Dr. Chunhua Lan
Room: BUS 308
Phone No: 9385 5952
Email: c.lan@unsw.edu.au
Consultation Times – Friday 14:00-15:00

2 COURSE DETAILS

2.1 Teaching Times and Locations
Lectures start in Week 1(to Week 12): The Time and Location are:
Lecture time: Wednesday 14:00 - 17:00 or 18:00 - 21:00
Location: Law Thl G23

2.2 Units of Credit
The course is worth 6 units of credit.

2.3 Summary of Course
FINS5517 covers the essential analytical and quantitative tools that are necessary for funds management. It shows how to carry out the computations and simulations needed to implement commonly used models in funds management. The focus of the subject is on passive and active funds management, and the use of derivative securities in funds management. The course covers a wide range of financial models in the areas of investment analysis, portfolio theory, portfolio risk management and investment style analysis. It also focuses on the recent advances in derivatives pricing methods in conjunction with their tactical and strategic applications.

2.4 Course Aims and Relationship to Other Courses
Portfolio Theory and Portfolio Management, by necessity, are very mathematical. A solid mathematics background, including basic econometric methods, is very desirable. The co-requisite subject is FINS5513. It is assumed that students can use either standard spreadsheet packages (e.g. Word and Excel) or some advanced statistics software (e.g. MATLAB or STATA).

Students with a non-finance background should undertake this course after FINS5513 or an equivalent investments course. It is the basis for and should be undertaken prior to undertaking more advanced Funds Management courses. Students will benefit from undertaking FINS5535 at least concurrently with FINS5517 or having knowledge of derivative securities beyond a basic introductory level.

2.5 Student Learning Outcomes
The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.
The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all postgraduate coursework students in the Business School. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree (e.g. ‘be an effective team player’). You demonstrate this by achieving specific Program Learning Outcomes - what you are able to DO by the end of your degree (e.g. ‘participate collaboratively and responsibly in teams’).

For more information on the Postgraduate Coursework Program Learning Goals and Outcomes, see Part B of the course outline.

<table>
<thead>
<tr>
<th>Program Learning Goals and Outcomes</th>
<th>Course Learning Outcomes</th>
<th>Course Assessment Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course helps you to achieve the following learning goals for all Business postgraduate coursework students:</td>
<td>On successful completion of the course, you should be able to:</td>
<td>This learning outcome will be assessed in the following items:</td>
</tr>
</tbody>
</table>

Business Postgraduate Coursework Program Learning Goals and Outcomes

1. Knowledge: Our graduates will have current disciplinary or interdisciplinary knowledge applicable in local and global contexts.
   You should be able to identify and apply current knowledge of disciplinary or interdisciplinary theory and professional practice to business in local and global environments.

2. Critical thinking and problem solving: Our graduates will have critical thinking and problem solving skills applicable to business and management practice or issues.
   You should be able to identify, research and analyse complex issues and problems in business and/or management, and propose appropriate and well-justified solutions.

3. Communication: Our graduates will be effective communicators in professional contexts.
   You should be able to:
   a. Produce written documents that communicate complex disciplinary ideas and information effectively for the intended audience and purpose, and
   b. Produce oral presentations that communicate complex disciplinary ideas and information effectively for the intended audience and purpose.

4. Teamwork: Our graduates will be effective team participants.
   You should be able to participate collaboratively and responsibly in teams, and reflect on your own teamwork, and on the team’s processes and ability to achieve outcomes.

5. Ethical, social and environmental responsibility: Our graduates will have a sound awareness of ethical, social, cultural and environmental implications of business issues and practice.
   You should be able to:
   a. Identify and assess ethical, environmental and/or sustainability considerations in business decision-making and practice, and
   b. Consider social and cultural implications of business and/or management practice.
1  Knowledge  | Be able to build and analyze investment portfolios.  
|                 | Gain an understanding of the effects of different portfolio management strategies over time.  
|                 | Appreciate some of the basic trading strategies of total return managers.  
|                 | • Quiz  
|                 | • Exam  

2  Critical thinking and problem solving  | Be able to implement dynamic portfolio insurance trading strategies.  
|                 | Better apply derivatives based risk management strategies for equity portfolios  
|                 | • Quiz  
|                 | • Exam  

3a  Written communication  | Construct written work which is logically and professionally presented.  
|                 | • Quiz  
|                 | • Exam  

4  Teamwork  | Work collaboratively to complete a task.  
|                 | • Not specifically assessed.  

### 3 LEARNING AND TEACHING ACTIVITIES

#### 3.1 Approach to Learning and Teaching in the Course

The course covers a great deal of often necessarily technical material, but we want to ensure that it will be relevant and meaningful to you in class and after you graduate: To achieve this objective we have a number of teaching aims:

- Create a climate of engagement, dialogue and ongoing feedback between students and teaching staff regarding the course content, teaching strategies, learning experiences and outcomes;
- Cater for a variety of learning preferences and abilities by providing a range of learning activities and teaching methods;
- Develop independent learning skills and create an environment that both provide structure and guidance as well as encouraging students to extend their learning;
- Develop skills in collaboration and teamwork, which is directly relevant to the skills required of a finance professional.

#### 3.2 Learning Activities and Teaching Strategies

Lectures are conducted in 3-hour blocks. Students are required to attend class lectures and to attempt suggested exercises after relevant lectures. This course encourages students to form study groups to engage in interactive discussions.

### 4 ASSESSMENT

#### 4.1 Formal Requirements

In order to pass this course, you must:

- achieve a composite mark of at least 50; and
- make a satisfactory attempt at all assessment tasks (see below).
4.2 Assessment Details

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Weighting</th>
<th>Length</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiz</td>
<td>10%</td>
<td>50 minutes</td>
<td>Week 4</td>
</tr>
<tr>
<td>Mid-session Exam</td>
<td>30%</td>
<td>2 hours</td>
<td>Week 6</td>
</tr>
<tr>
<td>Group assignment</td>
<td>20%</td>
<td>No more than 10 pages</td>
<td>Week 12</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
<td>2 hours</td>
<td>During University Exam Period 10th to 27th of June, date &amp; time TBA</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

**Quiz (10%)**:  
Due: During lecture in week 4  
The quiz tests material covered in the text, the lecture notes, the lectures, the tutorial and other assigned readings during the first three weeks. The examination is closed book and will take 50 minutes.

**Mid-session examination (30%)**:  
Due: During lecture in week 6  
The mid-session examination tests material covered in the text, the lecture notes, the lectures, the tutorial and other assigned readings during the first five weeks. The examination is closed book.

**Group assignment: (20%)**:  
Due: At the beginning of lecture in week 12  
The assignment and required data is posted on the course website. The assignment is designed to be completed concurrently with the progress of the lectures during the semester. The formation of workgroups of three to five students is encouraged. Each group will hand in one written report. No CDs or other media.

**Final examination (40%)**:  
Due: Held during the UNSW Final Exam Period (date and location to be determined centrally)  
The final examination tests material covered in the text, the lecture notes, the lectures, the tutorial and other assigned readings during weeks 1-12. The examination is closed book.

All exams are conducted in accordance with the UNSW Rules for the Conduct of Examinations and it is the student’s responsibility to be familiar with these rules.

4.3 Assessment Format

The format of projects and assignments will be explained in class. All student submissions should include, in large upper case letters, the student full names, last name first, ID numbers, and the course code. These information must be written clearly.
4.4 Late Submission
Late submissions will not be accepted unless exceptional medical or compassionate circumstances occur. Medical certificates or the evidence of extreme misfortune must be provided.

Quality Assurance
The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

5 COURSE RESOURCES
Textbooks


Lecture notes
The website for this course is on Moodle at:
http://moodle.telt.unsw.edu.au

Other References


6 COURSE EVALUATION AND DEVELOPMENT
Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process is one of the ways in which student evaluative feedback is gathered. In this course, we will seek your feedback through end of semester CATEI evaluations. You are also encouraged to provide constructive feedbacks to the lecturers directly in class, during consultation times or via email. We greatly value these suggestions and even criticisms.
7 COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Relevant topic and references</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part 1 – EQUITY PORTFOLIO MANAGEMENT</strong></td>
<td></td>
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</tbody>
</table>
| Week 1-2 | Portfolio Theory and Application  
Ref: Benniga Chapters 8,9,31; Bodie, etc. Chapters 6-8 |
| Week 2-3 | The Capital Asset Pricing Model and Security Market Line  
Ref: Benniga Chapters 10-12; Bodie, etc. Chapters 9,10 |
| Week 4 | Quiz  
During regular lecture time (based on lecture content from Weeks 1-3) |
| Week 4-5 | Arbitrage Pricing Theory and Multi-Factor Representation  
Ref: Benniga Chapter 32; Bodie, etc. Chapters 11,12 |
| Week 6 | Mid-Session Exam  
During regular lecture time (based on lecture content from Weeks 1-5) |
| **Part 2 – ASSET MANAGEMENT** | |
| Week 7 | Asset Management Strategies  
Ref: Farrell Chapters 8,9 |
| Week 8 | Strategic and Tactical Asset Allocation  
Ref: Hull: Chapter on “Forward and Futures contracts”; Bodie, etc. Chapter 22 |
| **Part 3 – DERIVATIVES IN PORTFOLIO MANAGEMENT** | |
| Week 9 | Introduction to Options & Option Trading Strategies  
Ref: Benniga Chapter 13; Bodie, etc. Chapter 20 |
| Week 10 | The Black-Scholes Model  
Ref: Benniga Chapters 16, 18, 19; Bodie, etc. Chapter 21 |
| Week 10-11 | Portfolio Insurance  
Ref: Benniga Chapters 21; Hull Chapter on “Hedging the risk of options” |
| Week 12 | Group Assignment Due, Class Discussion and Presentation |
|  | **Final Examination** – In final examination period |
PART B: KEY POLICIES, STUDENT RESPONSIBILITIES AND SUPPORT

8 PROGRAM LEARNING GOALS AND OUTCOMES

The Business School Program Learning Goals reflect what we want all students to BE or HAVE by the time they successfully complete their degree, regardless of their individual majors or specialisations. For example, we want all our graduates to HAVE a high level of business knowledge, and a sound awareness of ethical, social, cultural and environmental implications of business. As well, we want all our graduates to BE effective problem-solvers, communicators and team participants. These are our overall learning goals for you and are sought after by employers.

You can demonstrate your achievement of these goals by the specific outcomes you achieve by the end of your degree (e.g. be able to analyse and research business problems and propose well-justified solutions). Each course contributes to your development of two or more program learning goals/outcomes by providing opportunities for you to practise these skills and to be assessed and receive feedback.

Program Learning Goals for undergraduate and postgraduate students cover the same key areas (application of business knowledge, critical thinking, communication and teamwork, ethical, social and environmental responsibility), which are key goals for all Business students and essential for success in a globalised world. However, the specific outcomes reflect different expectations for these levels of study.

We strongly advise you to choose a range of courses which assist your development of these skills, e.g., courses assessing written and oral communication skills, and to keep a record of your achievements against the Program Learning Goals as part of your portfolio.

### Business Postgraduate Coursework Program Learning Goals and Outcomes

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<td><strong>2. Critical thinking and problem solving:</strong> Our graduates will have critical thinking and problem solving skills applicable to business and management practice or issues.</td>
<td>You should be able to identify, research and analyse complex issues and problems in business and/or management, and propose appropriate and well-justified solutions.</td>
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| **3. Communication:** Our graduates will be effective communicators in professional contexts. | You should be able to:  
  a. Produce written documents that communicate complex disciplinary ideas and information effectively for the intended audience and purpose, and  
  b. Produce oral presentations that communicate complex disciplinary ideas and information effectively for the intended audience and purpose. |
| **4. Teamwork:** Our graduates will be effective team participants. | You should be able to participate collaboratively and responsibly in teams, and reflect on your own teamwork, and on the team’s processes and ability to achieve outcomes. |
| **5. Ethical, social and environmental responsibility:** Our graduates will have a sound awareness of ethical, social, cultural and environmental implications of business issues and practice. | You should be able to:  
  a. Identify and assess ethical, environmental and/or sustainability considerations in business decision-making and practice, and  
  b. Identify and assess ethical, environmental and/or sustainability considerations in professional contexts, and  
  c. Identify and assess ethical, environmental and/or sustainability considerations in business and management practice or issues. |
9 ACADEMIC HONESTY AND PLAGIARISM

The University regards plagiarism as a form of academic misconduct, and has very strict rules regarding plagiarism. For UNSW policies, penalties, and information to help you avoid plagiarism see: https://student.unsw.edu.au/plagiarism as well as the guidelines in the online ELISE tutorials for all new UNSW students: http://subjectguides.library.unsw.edu.au/elise

To see if you understand plagiarism, do this short quiz: https://student.unsw.edu.au/plagiarism-quiz

For information on how to acknowledge your sources and reference correctly, see: https://student.unsw.edu.au/harvard-referencing

For the Business School Harvard Referencing Guide, see the Business Referencing and Plagiarism webpage (Business >Students>Learning support> Resources>Referencing and plagiarism).

10 STUDENT RESPONSIBILITIES AND CONDUCT

Students are expected to be familiar with and adhere to university policies in relation to class attendance and general conduct and behaviour, including maintaining a safe, respectful environment; and to understand their obligations in relation to workload, assessment and keeping informed.

Information and policies on these topics can be found in UNSW Current Students 'Managing your Program' webpages: https://student.unsw.edu.au/program.

10.1 Workload

It is expected that you will spend at least nine to ten hours per week studying this course. This time should be made up of reading, research, working on exercises and problems, online activities and attending classes. In periods where you need to complete assignments or prepare for examinations, the workload may be greater. Over-commitment has been a cause of failure for many students. You should take the required workload into account when planning how to balance study with employment and other activities.

We strongly encourage you to connect with your Moodle course websites in the first week of semester. Local and international research indicates that students who engage early and often with their course website are more likely to pass their course.

Information on expected workload: https://student.unsw.edu.au/uoc

10.2 Attendance

Your regular and punctual attendance at lectures and seminars, as well as in online activities, is expected in this course. University regulations indicate that if students attend less than 80% of scheduled classes they may be refused final assessment. For more information, see: https://student.unsw.edu.au/attendance
10.3 General Conduct and Behaviour
You are expected to conduct yourself with consideration and respect for the needs of your fellow students and teaching staff. Conduct which unduly disrupts or interferes with a class, such as ringing or talking on mobile phones, is not acceptable and students may be asked to leave the class. More information on student conduct is available at: https://student.unsw.edu.au/conduct

10.4 Health and Safety
UNSW Policy requires each person to work safely and responsibly, in order to avoid personal injury and to protect the safety of others. For more information, see http://safety.unsw.edu.au/ .

10.5 Keeping Informed
You should take note of all announcements made in lectures, tutorials or on the course website. From time to time, the University will send important announcements to your university e-mail address without providing you with a paper copy. You will be deemed to have received this information. It is also your responsibility to keep the University informed of all changes to your contact details.

11 SPECIAL CONSIDERATION
You must submit all assignments and attend all examinations scheduled for your course. You should seek assistance early if you suffer illness or misadventure which affects your course progress.

General information on special consideration for undergraduate and postgraduate courses:

1. All applications for special consideration must be lodged online through myUNSW within 3 working days of the assessment (Log into myUNSW and go to My Student Profile tab > My Student Services > Online Services > Special Consideration). You will then need to submit the originals or certified copies of your completed Professional Authority form (pdf - download here) and other supporting documentation to Student Central. For more information, please study carefully in advance the instructions and conditions at: https://student.unsw.edu.au/special-consideration

2. Please note that documentation may be checked for authenticity and the submission of false documentation will be treated as academic misconduct. The School may ask to see the original or certified copy.

3. Applications will not be accepted by teaching staff. The lecturer-in-charge will be automatically notified when you lodge an online application for special consideration.

4. Decisions and recommendations are only made by lecturers-in-charge (or by the Faculty Panel in the case of UG final exam special considerations), not by tutors.

5. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.

6. Special consideration requests do not allow lecturers-in-charge to award students additional marks.
Special consideration and the Final Exam in postgraduate courses:

Applications for special consideration in relation to the final exam are considered by a Business School Faculty panel to which lecturers-in-charge provide their recommendations for each request. If the Faculty panel grants a special consideration request, this will entitle the student to sit a supplementary examination. No other form of consideration will be granted. The following procedures will apply:

1. Supplementary exams will be scheduled centrally and will be held approximately two weeks after the formal examination period. The dates for Business School supplementary exams for Semester 1, 2016 are:
   - 12th July – exams for the School of Accounting
   - 13th July – exams for all Schools except Accounting and Economics
   - 14th July – exams for the School of Economics
   If a student lodges a special consideration for the final exam, they are stating they will be available on the above dates. Supplementary exams will not be held at any other time.

2. Where a student is granted a supplementary examination as a result of a request for special consideration, the student’s original exam (if completed) will be ignored and only the mark achieved in the supplementary examination will count towards the final grade. Failure to attend the supplementary exam will not entitle the student to have the original exam paper marked and may result in a zero mark for the final exam.

If you attend the regular final exam, you are extremely unlikely to be granted a supplementary exam. Hence if you are too ill to perform up to your normal standard in the regular final exam, you are strongly advised not to attend. However, granting of a supplementary exam in such cases is not automatic. You would still need to satisfy the criteria stated above.

Special consideration and assessments other than the Final Exam in postgraduate courses:

Special considerations must be applied for using the online system above for any assessment more than 20% of the student’s final mark. The lecture will advise the outcome of the special consideration via the online system.
12 STUDENT RESOURCES AND SUPPORT

The University and the Business School provide a wide range of support services for students, including:

- **Business School Education Development Unit (EDU)**
  
  https://www.business.unsw.edu.au/students/resources/learning-support

  The EDU provides academic writing, study skills and maths support specifically for Business students. Services include workshops, online resources, and individual consultations. EDU Office: Level 1, Room 1033, Quadrangle Building. Phone: 9385 5584; Email: edu@unsw.edu.au.

- **Business Student Centre**
  
  https://www.business.unsw.edu.au/students/resources/student-centre

  Provides advice and direction on all aspects of admission, enrolment and graduation. Office: Level 1, Room 1028 in the Quadrangle Building; Phone: 9385 3189.

- **Moodle eLearning Support**
  
  For online help using Moodle, go to: https://student.unsw.edu.au/moodle-support. For technical support, email: itservicecentre@unsw.edu.au; Phone: 9385 1333.

- **UNSW Learning Centre**
  
  www.lc.unsw.edu.au Provides academic skills support services, including workshops and resources, for all UNSW students. See website for details.

- **Library training and search support services**
  
  http://info.library.unsw.edu.au/web/services/services.html

- **IT Service Centre**
  

- **UNSW Counselling and Psychological Services**
  
  https://student.unsw.edu.au/wellbeing Provides support and services if you need help with your personal life, getting your academic life back on track or just want to know how to stay safe, including free, confidential counselling. Office: Level 2, East Wing, Quadrangle Building; Phone: 9385 5418; Email: counselling@unsw.edu.au

- **Student Equity & Disabilities Unit**
  
  http://www.studentequity.unsw.edu.au Provides advice regarding equity and diversity issues, and support for students who have a disability or disadvantage that interferes with their learning. Office: Ground Floor, John Goodsell Building; Phone: 9385 4734; Email: seadu@unsw.edu.au