THE UNIVERSITY OF
NEW SOUTH WALES

Australian School of Business
School of Banking and Finance

FINS2624
PORTFOLIO MANAGEMENT

COURSE OUTLINE
SEMESTER 2, 2009

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1. STAFF CONTACT DETAILS

Dr Henry Yip is the lecturer in charge of the subject. He can be contacted during his consultation hours (to be posted on course web page) either by phone (938-55870), in person (Level 3, ASB Building), or email (h.yip@unsw.edu.au). Students should refer to the course web page for contact details of the tutors.

2. COURSE DETAILS

2.1 Teaching Times and Locations

There are three streams of lecture:

Day	Time	Location
Mon	14:00 - 16:00	Biomedical Th A
Wed	11:00 - 13:00	Biomedical Th C
Wed	18:00 - 20:00	Law Theatre G04

Students may refer to the following page for full details of the above teaching times and locations:

http://www.timetable.unsw.edu.au/current/FINSKENS.html

Lectures commence in week 1, 20-24 July, and are held weekly until week 12, 12-16 October.

Tutorials commence in week 2, 27-31 July, and are held weekly until week 13, 19-23 October.

The following applies to week 11, 5-9 October,

(i) The Monday lecture will be cancelled due to Labour Day. The two Wednesday lectures will run as usual. Students enrolled in the Mon class are advised to sit in one of two Wednesday lectures.

(ii) No tutorials will be held during the week.

2.2 Units of Credit

This course is allocated 6 units of credit.

2.3 Summary of Course

Modern investment theories are introduced with an equal emphasis on theory and practice. The Markowitz model, capital asset pricing model, and single index model are studied and applied to design portfolios, price and manage risks, evaluate performance, identify mispriced assets, and estimate asset betas. The pricing of stocks, bonds, and options; the theories of the term structure; the duration concept; and the strategic use of options and futures for hedging and investment are also studied. Spreadsheet applications to securities pricing and investment theories are introduced to put theories into practice.

2.4 Course Aims and Relationship to Other Courses

Diversification is a key element in portfolio design to ride the volatility of the market and build wealth over the long term. This course will show you how diversification can help reduce risk and improve expected investment return. We'll study and apply the Markowitz portfolio theory, capital asset pricing model, single index model, and efficient market hypothesis to design portfolios, to identify under-and over-valued securities, to measure, price and manage risks, and to evaluate investment performance. We'll discuss the pricing of bonds and stock options. You'll learn how to manage a bond portfolio and to formulate option trading strategies to improve investment performance. You'll also use spreadsheet applications to apply and enhance your understanding of securities pricing and investment theories.

Portfolio Management is one of the four core courses in finance. This course extends and applies knowledge in financial mathematics acquired from FINS1613 and/or ECON1202 to price shares, bonds and stock options; portfolio theory from FINS1613 to rank and select portfolios; linear programming and calculus from ECON1202 to determine the composition and attributes of a portfolio; frequency distribution, measures of central tendency, mean and dispersion, normal distribution, point estimation of population parameters and confidence intervals from ECON1203 to understand investment risk, expected return and the Black-Scholes option pricing model; hypothesis testing, t-distribution, and bivariate regression from ECON1203 to study the single index model; and spreadsheet computer programs from ECON1202 to gain hands-on experience in spreadsheet applications developed for the tutorial program.

This course also covers the assumed knowledge required by finance courses in the area of funds management: FINS3640 and FINS3641; real estate finance: FINS3633; risk management: FINS3631, FINS3635 and FINS3636; and honours program: FINS3775.

2.5 Student Learning Outcomes

By the end of the course, you should be able to

1. Utilise your knowledge in the efficient market hypothesis, the anomalies in particular, to design investment strategies;
2. Apply the portfolio theory to rank and select portfolios; the capital asset pricing model to measure and price risk, and explain the popularity of index funds; the single index model to test market efficiency, separate market risk from firm-specific risk, and identify mispriced securities; the theories of the term structure and the duration concept to explain the choice of bonds;
3. Compute the prices of Commonwealth government bonds;
4. Derive the linear relationship between risk and expected return;
5. Evaluate and compare the performances of managed funds;
6. Identify any violation to the no arbitrage equilibrium and outline the trading to simultaneously eliminate the violation and earn a risk-free profit.
7. Use Excel to solve problems proficiently and creatively;
8. Improve your communication skills through class discussions and the group assignment task;
9. Increase your information literacy skills to appropriately locate, evaluate and use relevant information through the package of newspapers and journal readings.

Graduate Attributes

This course contributes to your development of the following Australian School of Business Graduate Attributes, which are the qualities, skills and understandings we want you to have by the completion of your degree.

Course Learning Outcomes	ASB Graduate Attributes
1 - 6	1. Critical thinking and problem solving
8	2. Communication
8	3. Teamwork and leadership
1, 8, 9	4. Social, ethical and global perspectives
1 - 9	5. In-depth engagement with relevant disciplinary knowledge
1 – 9	6. Professional skills

3. LEARNING AND TEACHING ACTIVITIES

3.1 Approach to Learning and Teaching in the Course

The philosophy underpinning this course is best summarised by the following list of guidelines extracted from Guidelines on Learning that inform teaching at UNSW:

http://www.guidelinesonlearning.unsw.edu.au/guideline16.cfm.

1. Effective learning is supported when students are actively engaged in the learning process.

2. Effective learning is supported by a climate of inquiry where students feel appropriately challenged and activities are linked to research and scholarship.

6. Students become more engaged in the learning process if they can see the relevance of their studies to professional, disciplinary and/or personal contexts.

7. If dialogue is encouraged between students and teachers and among students (in and out of class), thus creating a community of learners, student motivation and engagement can be increased.

10. Clearly articulated expectations, goals, learning outcomes, and course requirements increase student motivation and improve learning.

11. When students are encouraged to take responsibility for their own learning, they are more likely to develop higher-order thinking skills such as analysis, synthesis, and evaluation.

15. Effective learning is facilitated by assessment practices and other student learning activities that are designed to support the achievement of desired learning outcomes.

16. Meaningful and timely feedback to students improves learning.

I believe that a disciplined approach to learning is important for effective learning. Students should engage in the learning process actively through regular class attendance, active class participation, timely preparation for and revision of class activities, and regular staff consultation to resolve any learning issues.

I also believe that a well organised and structured course is important for effective learning and teaching. Besides designing a coherent lecture and tutorial program to present and discuss the syllabus, I'll

- use actual examples and research findings in my lectures to demonstrate the relevance of the subject to the finance profession and
- give students a variety of questions to practise and apply concepts.

To prepare students to practise finance, I believe that it's best to encourage students to form a habit of reading the newspapers and journals to gain practical knowledge and global perspectives, develop higher order thinking skills, and appreciate the many applications of the theories taught in class to the real world.

The teaching strategies and assessments that I formulate below are due entirely to the learning outcomes and philosophy underpinning this course.

3.2 Learning Activities and Teaching Strategies

The teaching in this course goes through a cycle of five coherent and equally important components: (i) the lecture program, (ii) package of newspaper and journal readings, (iii) revision, (iv) tutorial program, and (v) workshop.

The ***lectures*** are designed to introduce you to the world of finance in the area of portfolio management. The topics include investment theories and securities pricing. Whenever a finance theory is introduced, I'll derive it formally, discuss its contribution and applications, and use practical examples to relate the theory to the real world. I believe that this logical sequence of discussion can help you assimilate knowledge due to understanding rather than memorisation.

To put theory into practice, we need to refer to the ***financial press*** (for the latest development in the market) ***and journals*** (for research findings relevant to portfolio management). I'll post a number of newspaper and journal articles on the course web page for your perusal. I will also use the materials in teaching and assessment.

Revision and practice are the integral parts of learning. After each lecture, you should *revise* the lesson by studying the prescribed readings, and *practise* the knowledge by attempting problems. I'll prescribe two sets of questions (tutorial and revision) for you to apply knowledge to a variety of questions, to assess your understanding, to help improve your critical thinking and problem solving skills, and to prepare for the examinations.

Learning will not be complete without feedback.

- The ***tutorial*** question set will be discussed formally in tutorials. We value your active participation to ask and answer questions. The tutor will focus on the approach being used to solve the problem so as to reinforce your knowledge and correct any misunderstanding that you might have.
- For the revision question set, you may check your answers against the solutions provided in the prescribed text and the solution manual that corresponds to the recommended text. You may also attend the ***workshop*** to see how the tutor approaches and attempts some of the revision questions. The workshop is open to all students and commences in week 3. No formal enrolment is required. The

revision question set, workshop times and locations will be posted on the course web page in due course.

- Should you have any problems regarding the course, and the tutorial and revision question sets, please feel free to see us during our consultation times.

4. ASSESSMENT

4.1 Formal Requirements

In order to pass this course, you must:

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

4.2 Assessment Details

Assessment Task	Weighting	Learning Outcomes assessed	ASB Graduate Attributes assessed	Length	Administration / Due Date
Tutorial	2	1 to 8	1, 2, 5, 6	1 hour	See tutorial program
Quiz 1	3	3	1, 5, 6	10 mins	1st 10 mins of tutorial time in wk 4
Quiz 2	3	2, 7	1, 5, 6	5 mins	1st 5 mins of tutorial time in wk 7
Assignment	12	1, 5, 8, 9	1 to 6		Q1 – week 5 lecture recess Q2 – week 11 lecture recess Q3 – week 12 lecture recess
Mid-Session Exam	35	2 to 4, 7, 9	1, 4 – 6	80 mins	Week 10 lecture
Final Exam	45	1, 5, 6, 9	1, 4 – 6	2 hours	Exam period

4.3 Assessment Format

Tutorial – Students are expected to

- participate actively in tutorial discussion and
- show respect for their classmates and the tutor by arriving on time, paying attention, and staying for the entire duration of the tutorial.

The grading criteria include preparation, participation, attendance, punctuality, and respect to others. University regulations indicate that if students attend less than eighty per cent of scheduled classes they may be refused final assessment.

Quiz – In the first quiz, we will use a number of short questions to test your knowledge of bond pricing. Specifically, we want you to identify the inputs and show us how these inputs are used to compute the settlement and capital prices of a Commonwealth government bond. In the second quiz, we will also use a number of short questions to test your knowledge of Excel. Specifically, we want you to provide a clear set of instructions to locate a minimum variance portfolio.

Assignment – The assignment has three questions. For each question, you may work on your own or in a group of no more than 3 students. For example, you may submit question 1 by yourself, form a group of two to attempt the second question, and continue with the same group or form another group to answer the third question. Group members may be enrolled in different lecture streams or tutorial classes. The assignment is based entirely on two journal articles from the Financial Analysts Journal, a journal that "*emphasizes research of practical value to investment professionals, while exploring new and challenging topics that provide a unique perspective in the rapidly evolving profession of investment management*". The two articles discuss two typical styles of investment adopted by fund managers in practice, namely, value and growth investing; research their historical performances; and critically evaluate the arguments raised to explain the superior performance of value over growth. The questions are used to test your understanding of the above issues. The assignment and articles will be posted on the course web page.

Mid-Session Exam – The mid-session exam covers lecture topics discussed in week 1 to 5. The prescribed readings for these weeks form part of the examination syllabus. The paper has 60 multiple-choice questions and 80 minutes of exam time. The exam will be held in Week 10 during class times. You must go to the class in which you are enrolled as shown in MyUNSW. You are expected to arrive at the venue at least 15 minutes prior to the exam. If you arrive 30 minutes or longer after the commencement of the MS test, you may not be allowed to take the exam. If you are late for less than 30 minutes, you may take the exam but no time compensation will be granted. You must stay for the entire duration of the exam.

We may book extra rooms for the afternoon class on Monday and the morning class on Wednesday.

Final Exam - The final exam covers lecture topics discussed in week 6 to 9, and 11 to 12. The prescribed readings for these weeks form part of the examination syllabus. The paper has no more than 90 multiple-choice questions and you have two hours to complete the paper.

4.4 Assignment Submission Procedure

Each of the three questions has a different due date. For group work, only one submission per group is needed. Submit the answers to the first, second and third questions to Henry Yip in one of his lectures held in week 5, 11 and 12, respectively.

4.5 Late Submission

The due date is strictly adhered to. We will consider relaxing the due date if and only if each and every member of a group (for group attempt) or individual (for individual attempt) can provide a timely, reasonable and documented (severe) medical or compassionate excuse. In any case, the lecturer-in-charge reserves the right not to grant any extension. If a group or individual fails to submit on time without prior approval, every member of the group or the individual are deemed to have failed to attempt an assessable component.

5. Academic Honesty and Plagiarism

The University regards plagiarism as a form of academic misconduct, and has very strict rules regarding plagiarism. For UNSW's policies, penalties, and information to help you avoid plagiarism see: http://www.lc.unsw.edu.au/plagiarism/index.html as well as the guidelines in the online ELISE tutorial for all new UNSW students: http://info.library.unsw.edu.au/skills/tutorials/InfoSkills/index.htm.

6. COURSE RESOURCES

i. Prescribed text (available in the Uni Bookshop) –
   - Yip, H., 2005, *Spreadsheet Applications to Securities Valuation and Investment Theories*, John Wiley & Sons

ii. Course web page via http://vista.elearning.unsw.edu.au.

iii. Prescribed readings from the newspapers and finance journals – refer to the course webpage.

iv. Recommended text
   - Bodie, Z., A. Kane and A. Marcus, 2009, *Investments*, 8th edition, Irwin McGraw Hill – refer to this text for some of the revision questions
   - Swensen, B., Solutions Manual (to BKM Investments, 8th edition), Irwin McGraw Hill – refer to this text for solutions to some of the revision questions

7. COURSE EVALUATION AND DEVELOPMENT

Each year we seek feedback from students and tutors about the course. UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process is one of the ways in which student evaluative feedback is gathered. We take the feedback seriously and make continual improvements based on this feedback. We also take the initiative to experiment with new strategies to improve teaching and assessment.

Past students have suggested that I could provide more exercise to help them prepare for the examination. I have taken the suggestion on board and decided to not just recommend additional revision questions, but also introduce workshops for the very first time to discuss these questions to help students learn and to provide feedback on student learning. As we are offering workshops for the first time, we will monitor attendance to determine its viability during the semester. Your feedback on the usefulness of this initiative would be much appreciated.

8. STUDENT RESPONSIBILITIES AND CONDUCT

8.1 Workload

It is expected that you will spend at least ten hours per week studying this course. This time should be made up of reading, research, working on exercises and problems, 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.

8.2 Attendance

Your regular and punctual attendance at lectures and tutorials is expected in this course. University regulations indicate that if students attend less than eighty per cent of scheduled classes they may be refused final assessment.

8.3 Special Consideration and Supplementary Examinations

You must submit all assignments, and attend all quizzes and examinations scheduled for your course. You should seek assistance early if you suffer illness or misadventure which affects your course progress. For advice on UNSW, faculty and school policies and procedures for granting special consideration and supplementary exams, see:

'UNSW Policy and Process for Special Consideration': https://my.unsw.edu.au/student/atoz/SpecialConsideration.html

The 'ASB Policy and Process for Special Consideration and Supplementary Exams in Undergraduate Courses' is available at: http://wwwdocs.fce.unsw.edu.au/fce/current/StudentSuppExamProcedure.pdf .

Further information for undergraduate students is on the ASB website (see 'Policies and Guidelines for Current Students').

School policy and process for Special Consideration also applies (see http://www.banking.unsw.edu.au/nps/servlet/portalservice?GI_ID=System.LoggedOutInheritableArea&maxWnd=_Current_SpecialConsideration)

8.4 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: www.my.unsw.edu.au

8.5 Occupational 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 https://my.unsw.edu.au/student/atoz/OccupationalHealth.html.

8.6 Keeping Informed

You should take note of all announcements made in lectures, tutorials or on the course web site. 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.

9. ADDITIONAL STUDENT RESOURCES AND SUPPORT

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

- **ASB Education Development Unit (EDU)** (www.business.unsw.edu.au/edu) Academic writing, study skills and maths support specifically for ASB students. Services include workshops, online and printed resources, and individual consultations. EDU Office: Room GO7, Ground Floor, ASB Building (opposite Student Centre); Ph: 9385 5584; Email: edu@unsw.edu.au

- **Capturing the Student Voice**: An ASB website enabling students to comment on any aspect of their learning experience in the ASB. To find out more, go to http://tinyurl.com/ASBStudentVoice.
- **UNSW Learning Centre** (www.lc.unsw.edu.au)
  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
- **UNSW IT Service Desk**: Technical support for problems logging in to websites, downloading documents etc. Library, Level 2; Ph: 9385 1333.
  Website: www.its.unsw.edu.au/support/support_home.html
- **UNSW Counselling Service** (http://www.counselling.unsw.edu.au)
  Free, confidential service for problems of a personal or academic nature; and workshops on study issues such as 'Coping With Stress' and 'Procrastination'.
  Office: Level 2, Quadrangle East Wing ; Ph: 9385 5418
- **Student Equity & Disabilities Unit** (http://www.studentequity.unsw.edu.au)
  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; Ph: 9385 4734

10. COURSE SCHEDULE

Lecture Program

Wk	Assessment / Topic	Prescribed Readings from Yip (2005)#
1	Course introduction & bond pricing	COL, WebCT Vista, S1 & S2
2	Yield to maturity, holding period return & the term structure of interest rates	S2 & S4
3	Spot rates and duration	S4 & S5
4	Markowitz portfolio theory	S6
5	Assignment Q1 due; Optimal risky & optimal balanced portfolios	S7
6	Capital Asset Pricing Model	S8
7	Single Index Model	S9
8	Performance measures	S10
9	Efficient Market Hypothesis	S12
10^	Mid-Session Exam	
11*	Assignment Q2 due; Stock options & option strategies	S13
12	Assignment Q3 due; Black-Scholes option pricing model	S14

^ In week 10, the mid-session exam will be held during lecture times.
* In week 11, due to Labour Day holiday, students who are enrolled in the Monday class are advised to attend either one of the two Wednesday classes.

Note that "*S*" under the column of prescribed readings stands for "Session". Lecture notes will be posted on the course web page. Besides the textbook, there are prescribed newspaper and journal readings which are posted on the course web page. Prescribed means the material forms part of the syllabus and is examinable.

After each lecture, you are expected to revise the lesson by studying the prescribed textbook, newspaper and journal readings, and practise knowledge by attempting the tutorial and revision questions.

Tutorial Program

Wk	Assessment / Topic	Tutorial Questions
2	Bond pricing	S2: DQ A to E. For DQ B to E, you may use Excel and/or a calculator.
3	YTM, HPR & Term structure	S4: DQ A, B i, ii, & iii, D and E
4	***Quiz 1***; Spot rates and duration	S4: DQ B iv & v, and C; S5: DQ A to F
5	Portfolio theory	S6: DQ A to H
6	Optimal Portfolios	S7: DQ A to H
7	***Quiz 2***; Capital Asset Pricing Model	S8: DQ A to D, F to H
8	Single Index Model	S9: DQ A to J
9	Performance measures	S10: DQ A to F
10	Efficient Market Hypothesis	S12: DQ A to F
11	No tutorials	
12	Payoff & Profit/Loss Diagrams	S13: DQ A to D. Use a calculator instead of Excel to solve the problems.
13	Black-Scholes Model	S14: DQ A to F

Prior to each tutorial class, you are expected to have done the homework. This way, you will be familiar with the questions, able to follow and participate in the discussion, and receive constructive feedback on your learning and understanding. I sincerely do not want to see anyone falling behind, being spoon-fed with answers, and struggling with study due to a lack of preparation.

Some tutorial questions require Excel. The corresponding Excel templates/files can be found in the CD provided in the prescribed text, Yip (2005). The CD also contains a number of ***pdf*** files that summarise the spreadsheet applications and their relationships to the underlying concepts. For a detailed explanation of the spreadsheet applications and their usage, refer to the demonstration section of Yip (2005).