



BUSINESS SCHOOL  
Te Kura Pakihi

## COURSE OUTLINE

***FINC 202***  
***Investment Analysis and Portfolio***  
***Management***

Semester One, 2019

## Paper Description and Aims

This course introduces students to the principals of valuation of financial securities and their uses in a portfolio of assets. We look at equity (stock/shares), debt (fixed income/interest) and derivatives. We analyze asset pricing models and financial markets. Ethical issues in financial markets will also be raised from time to time.

This paper aims to set the foundations of future finance studies, and is a pre-requisite for further finance studies. The class is purposefully designed to expose the student to a large range of challenging core financial concepts. **The class has a significant increase in difficulty compared to level 100 papers and thus only students with a genuine interest in finance should enroll.** Nearly 50% of the learning will be **independent**, and the majority of **assessments will be mostly problem based** in nature – underlying theory and mathematics is your responsibility to learn.

**The course assessment will be based on assignments, a midterm exam and a final exam. In order to pass the course, you need to meet **ALL** of the requirements below.**

**1) You need to score at least 40% on both the midterm and final exams.**

**2) You will need to score at least 50% – 35 out of 70 - in the midterm and final combined**

**3) You need to score a total of least 50% - 50 out of 100 - in the entire course.**

**The course will also rely heavily on mathematics and quantitative methods as it is expected that students will have attended prior courses on these topics.**

## Learning Outcomes

Upon successful completion of this paper, you should be able to

### Miscellaneous

1. Have a basic understanding of securitization, products and trading platforms
2. Distinguish between a price weighted and value weighted index
3. Calculating holding period returns for levered and unlevered securities
4. Calculate the level and returns of value and price weighted indices
5. Discuss the three forms of market efficiency and their implications
6. Explain why it is important to have efficient markets

### Portfolio Theory

1. Derive the efficient frontier for the two asset case
2. Explain how having a riskless asset affects portfolio choice
3. Derive the minimum variance set when all assets are risky
4. Understand the efficient frontier with multiple risky and one riskless asset
5. Derive and understand the implications of CAPM and the Capital Market Line
7. Compute the expected return on a security using CAPM
8. Determine if a security is over- or under-priced using CAPM

## Fixed Income

1. Compute the price of a bond and yield
2. Explain why different bonds have different yields
3. Calculate the duration of a bond
4. Explain how duration measures interest rate risk
5. Compute forward rates given the current spot rates
6. Study basics of Immunization (subject to student interest)

## Equities

1. Estimate the price of a share using the dividend discount model
2. Understand and use the Gordon Growth Model for pricing equities
3. Describe the limitations of the dividend discount model

## Derivatives

1. Explain derivatives and payoff diagrams
2. Describe the pricing question and basic pricing principles
3. Describe trading strategies using derivatives (especially options and futures)
4. Price derivatives by replication – Single Period Model
5. Price derivatives by replication – Binomial Trees
6. Derivatives Pricing – Black Scholes Model and formulas (subject to student interest)

## Teaching Staff

### Co-ordinator

Name: Dr. Xing Han

Office: CO 3.10, Third Floor, Commerce Building

Email: [xing.han@otago.ac.nz](mailto:xing.han@otago.ac.nz)

Office Hours: Mon. 14:00 – 16:30 or by email appointment

You should contact the course coordinator regarding academic content of the course and assignment submission issues. Margaret Grundy should be contacted regarding any administrative enquiries.

## Course Delivery

Lecture Day/Time: Tue: 10:00 – 11:50 and Thu: 8:00 – 9:50.

Room: OBS 117 (Tue) and ARCH 3 (Thu)

Tutorials Day/Time: Weekly, starting week 2. (See eVision for your streaming details and timetable)

Students are expected to attend all lectures and their designated tutorial stream. **If you fail to attend lectures, you are solely responsible for making up the material covered from your fellow students.**

Tutorials begin in the **second week** of semester.

Tutorial times and locations will be posted on eVision.

**If you require a tutorial stream change due to clashes or late enrollment after formal Course Approval, you can do this in the first two weeks of the semester.**

A series of Practice Problems will be posted periodically on Blackboard.

These will be solved in the tutorials. However, it is expected that you will have made a sincere effort to solve the problems yourself before you attend the tutorials.

Solutions to the Practice Problems will **not** be posted – it is expected that you will attend the tutorials or solve them yourself.

**Course Calendar** The course calendar (in this outline) details scheduling information. Note that this calendar may change as the course proceeds. Any changes will be announced at lectures and be detailed on Blackboard.

These activities should be prepared for by reviewing information detailed on Blackboard and completing any assigned readings. Students unable to attend a lecture are expected to catch up on missed material. Unless stated otherwise, all aspects of the course are examinable.

## Expectations and Workload

Below outlines the expected workload for FINC 202 in 2015. This acts as a guideline only, depending on your level of finance knowledge you may need additional hours.

Category	Activity	Time (hours)
Class	Lectures (26 lectures x 2 hours)	52
Class	Tutorials (12 x 1 hour)	12
Assessments	Assignments (4 assignments)	30
Assessments	Mid-Term Examination	2
Assessments	Final Exam	2
Private Study	Pre-Reading	40
Private Study	Independent Research	42
<b>Total</b>		<b>180</b>

Note that *Class contact* (lectures & tutorials) accounts for 64 hours [35.56%], *Assessments* (Mid-term, Assignments, & Finals) accounts for 34 hours [18.89%], while your **Private Study** (pre-reading & consolidating concepts) accounts for 82 hours [45.56%]. As we accept students of varying financial knowledge, there is a very large emphasis on your ability to learn what is necessary.

## Course Learning Resources

***Essentials of Investments*, 10<sup>th</sup> edition** by Bodie, Kane and Marcus (BKM). McGraw-Hill Irwin. The book is available from the University Bookshop and closed reserve in the library.

The following textbook – which has multiple copies in the library – is *recommended (but optional)* ***Investment Science*** – David Luenberger (available in Library and bookstore)

A useful Library website is dedicated to Finance topics and is found here:

<http://www.library.otago.ac.nz/databases/results.php?code=finc&dept=Finance>

## Blackboard

<https://blackboard.otago.ac.nz/> provides you with access to course materials, class notices, and resources. Lecture slides will be posted on Blackboard. Blackboard is used to email the whole class so it is important that you check your student email and *Blackboard* regularly. Alternatively, use PIMS to re-direct all your Otago emails to your personal email account, shown below:

## Communication and Social Media:

All communication between lecturers and students will be conducted via Blackboard and University e-mail. The lecturers will **not** respond to any student mails sent to personal accounts or via any form of social media.

**Any information about the course obtained via sources other than the University of Otago website, Blackboard or e-mails sent from the lecturer's university e-mail is unofficial and we cannot be responsible for any decisions you may make based on them.**

## Student Webmail

### IMPORTANT - DO THIS NOW:

We will use your student email account to email you information relevant to your programme. To forward your University email address to an email address that you use regularly:

1. Log into your StudentMail account (<http://www.otago.ac.nz/smlanding/>) using your student username and password.
2. Click the **Cog** button (top right corner).
3. Click on **Mail** under **Your App Settings**.
4. Under **Accounts** on left hand side, select **Forwarding**.
5. Under the Forwarding heading, type in the email address you want your email to be forwarded to. You can also choose to have a copy of these emails kept on your StudentMail account, so please check the box if you would like this.
6. Click the **Save** button.

## Assessment

All material presented is examinable (except where stated otherwise) by assignments and the final examination. All important assessment information such as due dates and times, content, guidelines and so on will be discussed at lectures and, where appropriate, detailed on Blackboard. *Students are responsible for ensuring that they are aware of this information, keeping track of their own progress, and catching up on any missed classes.*

Assessment	Due date	% of final grade
Assignments	Weeks 3, 5 10, and 12	30% (4 assignments)
Mid-Term Exam	To Be Announced	35%
Final Exam	To Be Announced	35%

## Pass Requirements

1. You need to score at least 40% - 14 out of 35 - on both the midterm and final exams to pass.
  - a. If you score less than 40% on the midterm, you will "Fail Terms" and not be eligible to sit the final exam.
2. You will need to score at least 50% in the midterm and final combined – i.e. 35 out of 70 – to pass the course.
3. You need to score a total of least 50% - 50 out of 100 - in the entire course.

## Assignments

Assignments are due on Friday in weeks 3, 5, 10 and 12 (or other dates as indicated in the assignment guidelines).

**Assignments need to be submitted in the FINC 202 dropbox by the due date and time or earlier.**

**No Late assignments are accepted under any circumstances.**

Your name and student ID must be visible on the cover page; we advise adding this information onto every page though. **Only handwritten work is acceptable.**

If you have messy handwriting then take your time to improve presentation; if we can't read your writing then we cannot award marks.

**Do not submit computer printouts (too easy to share files), unless specifically stated on the assignment.**

**Bind your pages together with a STAPLE in the top left corner; lost pages are not our responsibility.**

## Mid-Term Exam

The mid-term exam covers all material up to, and including, the week of the exam.

The test will consist of a set of problems.

The test will be held in class and under examination conditions.

**No extra time will be granted for lateness.**

## Grading System

The grading scheme used at Otago is:

A+	90-100	C+	60-64
A	85-89	C	55-59
A-	80-84	C-	50-54
B+	75-79	D	40-49
B	70-74	E	<40
B-	65-69		

# Academic Integrity

Academic integrity means being honest in your studying and assessments. It is the basis for ethical decision-making and behaviour in an academic context. Academic integrity is informed by the values of honesty, trust, responsibility, fairness, respect and courage. Students are expected to be aware of, and act in accordance with, the University's Academic Integrity Policy.

Academic Misconduct, such as plagiarism or cheating, is a breach of Academic Integrity and is taken very seriously by the University. Types of misconduct include plagiarism, copying, unauthorised collaboration, taking unauthorised material into a test or exam, impersonation, and assisting someone else's misconduct. A more extensive list of the types of academic misconduct and associated processes and penalties is available in the University's Student Academic Misconduct Procedures.

It is your responsibility to be aware of and use acceptable academic practices when completing your assessments. To access the information in the Academic Integrity Policy and learn more, please visit the University's Academic Integrity website at [www.otago.ac.nz/study/academicintegrity](http://www.otago.ac.nz/study/academicintegrity) or ask at the Student Learning Centre or Library. If you have any questions, ask your lecturer.

Further information about the Academic Integrity Policy, the Student Academic Misconduct Procedures and the Academic Integrity can be found through the links below. The Academic Integrity website in particular has a number of useful links and suggestions as to where students can get help with referencing issues.

<http://www.otago.ac.nz/administration/policies/otago116838.html>

<http://www.otago.ac.nz/administration/policies/otago116850.html>

[www.otago.ac.nz/study/academicintegrity](http://www.otago.ac.nz/study/academicintegrity)

## Student Feedback

We encourage your feedback. This can be in the form of contacting staff, participating in course evaluation surveys and communicating with class representatives. Continual improvements will be made to this course based in part on student feedback.

## Class Representatives

The class (or student) representative system is an avenue for encouraging communication and consultation between staff and students. It provides you with a vehicle for communicating your views on the teaching and delivery of the paper and provides staff with an opportunity to communicate information and gain constructive feedback from students. It contributes to the development of a sense of community within a department and it adds a further dimension to the range of support services offered to students. This entails attending two or three meetings of all Departmental class reps during the semester. Volunteers for the role of class representatives will be called early in the semester. Your class representative's name and contact details will be posted on Blackboard early in the semester.

# Course Calendar

Week	Date	Topic	Assessment
1	26-Feb	Introduction to Investments	
	28-Feb	Securities and Indices	
2	5-Mar	Risk and Return, Portfolio Theory (I): Two Asset Case	
	7-Mar		
3	12-Mar	Portfolio Theory (II): Multiple Assets and Optimization	<b>Assignment 1 due</b>
	14-Mar		
4	19-Mar	Portfolio Theory (III): Multiple Assets and the Efficient Frontier	
	21-Mar		
5	26-Mar	Security Market Line and CAPM	<b>Assignment 2 due</b>
	28-Mar		
6	2-Apr	Portfolio and Performance Evaluation	
	4-Apr		
7	9-Apr	Bond Valuation	
	11-Apr	Bond Yield	
8	16-Apr	Mid-term Revision	
	18-Apr	Mid-term Test	
	23-Apr	Mid-semester Break	
	25-Apr	Mid-semester Break	
9	30-Apr	Bond Risk	
	2-May	Equity Valuation	
10	7-May	Equity Valuation	<b>Assignment 3 due</b>
	9-May	Equity Valuation	
11	14-May	Futures	
	16-May	Futures	
12	21-May	Option Introduction	<b>Assignment 4 due</b>
	23-May	Option Valuation	
13	28-May	Reserved Week	
	30-May	Reserved Week	

**Lectures end Friday, 31 May 2019**

**University Exam Period: 5 June 2019 - 19 June 2019**

All information is current as of 22 February 2019, but is subject to change. All changes will be notified in advance.

## Disclaimer

While every effort is made to ensure that the information contained in this document is accurate, it is subject to change. Changes will be notified in class and via Blackboard. Students are encouraged to check Blackboard regularly. It is the student's responsibility to be informed.