

VICTORIA MANAGEMENT SCHOOL

International MBA Programme

IMBA 516 CORPORATE FINANCE

2007

COURSE OUTLINE

Start Date: 24 March 2007

Format: 12 two-hour lectures over two weekends

Lecture Times: 24 March and 28 April: 2:00 pm – 6:00 pm & 7:00 pm – 9:00 pm

25 March and 29 April: 11:00 am – 2:00 pm & 3:00 pm – 6:00 pm

Location: 803, Mong Man Wai Engineering Building, The Chinese University of Hong Kong

Teaching Staff: Richard Meade, BCA, BSc, BSc (Honours, First Class)

Email: richard.meade@vuw.ac.nz

Phone: +64-4-476-5182 – please try email first

Mail: C/- Charlotte Deans, Victoria Management School, PO Box 600, Wellington, New Zealand

Textbook: Brealey, R. A., Myers, S. C. and F. Allen, *Corporate Finance*, 8 ed., International Student Edition, McGraw-Hill Irwin, 2006.

Equipment: Only calculators that are non-programmable will be permitted in the final exam.

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Course Objectives

The International Master of Business Administration Programme serves to produce professional managers capable of fulfilling strategic roles within international business and government enterprises. Integral to this capability is an understanding of the corporate finance within the context of domestic and international financial markets.

This course aims to provide students with a solid theoretical base upon which a practical framework for managing and succeeding in the workplace can be established. The scope of this course is broad. With an initial understanding of financial markets and institutions, the major functions of corporate finance will be covered. These begin with basic financial mathematics, moving to investment analysis utilising net present value and real options analyses. The relationship between risk and return is then modelled, enabling a fuller examination of investment appraisal techniques. The major financial policy issues are then traversed, including the theory and evidence on capital market efficiency, firms' financial payout choices, and appropriate financing mix. A discussion of the nature and use of financial options, and risk management techniques, conclude the course.

By the end of this course, you should:

1. Have an understanding of the major theories and concepts underlying the corporate finance.
2. Have a sense of how these theories are applicable within the business context.
3. Have a strategic perspective with respect to the linkages and interrelationships in managing corporate finance.

Assessment

Individual Assignment: 20% of Final Grade, Due 7 April 2007, Returned 28 April 2007

Group Project Assignment: 30% of Final Grade, Due 28 April 2007

Final Exam: 50% of Final Grade, Open Book, 26 May 2007

Individual Assignment (20%) – The individual hand-in assignment will be discussed in the initial session, at which time detailed terms of reference will be distributed. Written assignment reports will be due at the lecture by 2 pm on Saturday 7 April 2007.

Group Project (30%) – The group project will be discussed during the first visit, at which time detailed terms of reference will be distributed. Written Group Reports will be due at the lecture by 2 pm on 28 April 2007.

Important Note – Inclusion of others' work and research completed is welcome. However, such material (even if it is a single sentence) must be explicitly recognised with quotation marks in the project report, citing its origin in a footnote.

Final Exam (50%) – A final three-hour open-book exam will be held on Saturday 26 May (location and other details to be advised by APIB) during which students will be expected to apply their knowledge of the course materials to corporate finance problem situations described by case vignettes. In accordance with University policy, students must obtain a minimum of forty percent of the marks available on the final exam in order to pass the course.

Course Terms of Reference

Late Assignments

Given the modular nature of the course and the relatively short time for marking and return, it is imperative that assignments are handed in on time. Late assignments will incur a 50% penalty on the assigned mark. Assignments more than two weeks late will not be accepted. In addition, late assignments will not be available by the agreed-to return date.

Obtaining Terms

To obtain terms to sit the final exam in this course, students are required to participate in both weekend modules and submit both written assignment reports.

Passing the Course

In order to pass this course students are required to obtain at least 40% of the final examination marks available, and obtain at least 50% of the overall course marks available.

Victoria IMBA Grading Standards

Excellent Category

A- (75-79%) to A (80-85%) to A+ (above 85%): The learning is demonstrated to a very high level of proficiency, i.e. it is at a standard that makes it exceptional at Master's level.

Very Good Category

B+ (70-74%): The learning is demonstrated at a high standard. Students have reached a level that clearly exceeds "competency".

Good Category

B (65-69%): The learning is clearly demonstrated without being exceptional in any way. Students can be thought of as fully competent.

Satisfactory Category

B- (60-64%): The learning is demonstrated without being exceptional in any way. Students can be thought of as competent.

Marginal Category

C (50-54%) to C+ (55-59%): The learning is demonstrated to a minimally acceptable level. There may be flaws but these are not serious enough to "fail" the student.

Unsatisfactory/Failure Category

E (0-39%) to D (40-49%): The learning is absent or performed to a very low level, or the performance is seriously flawed.

Individual Work

While the Victoria IMBA programme has a tradition of study group collaboration, there are important elements in the assessment process that are strictly individual. Collaboration on individual assignments is not allowed. Please do not work together to formulate a response and do not loan out your completed assignments.

Plagiarism

The Victoria IMBA programme views plagiarism as a serious offence. Students who plagiarise put themselves at risk of expulsion from the programme. Plagiarism is defined as representing someone else's work as your own. It includes: cutting and pasting materials from websites, typing in sentences and paragraphs from books and journals, copying from other assignments and materials, and taking quotes that others have used without recognising the originator. It also includes writing verbatim from a textbook in an open-book exam situation without recognising the source of your material. If you use other peoples' materials, then you must give them credit and recognise the source. This includes making the material explicit by putting it in quotations and placing a footnote at the bottom of the page or back of your document to indicate complete details of the author and source.

Other Assignment Matters

Note that some basic familiarity with using a spreadsheet like Microsoft Excel may be required for the assignments.

Students must prepare two copies of each hand-in and keep the second copy for their own reference. Students must also keep an electronic copy of their work archived in case the original assignment goes missing. Failure to do so will jeopardise any claim by you that your work was submitted in the rare cases where your work goes astray.

Communication of Additional Information

Additional course information will be communicated using VUW's Blackboard system.

Referencing

There are many different styles of referencing and the Faculty of Commerce & Administration at VUW has decided to make APA (American Psychological Association) referencing style the common standard across the Faculty. The Commerce and Central Libraries hold the APA Style Guide. You can also access the information from the online VUW library site (<http://www.vuw.ac.nz/library/resources/virtualref.shtml#style>).

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General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the Victoria University Calendar available in hard copy or under 'About Victoria' on the VUW home page at www.vuw.ac.nz.

Student and Staff Conduct

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps are to be taken if there is a complaint. For information about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor or refer to the statute on the VUW policy website at www.vuw.ac.nz/policy/studentconduct. The Policy on Staff Conduct can be found on the VUW website at www.vuw.ac.nz/policy/staffconduct.

Academic Grievances

If you have any academic problems with your course you should talk to the tutor or lecturer concerned; class representatives may be able to help you in this. If you are not satisfied with the result of that meeting, see the Head of School or the relevant Associate Dean; VUWSA Education Coordinators are available to assist in this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website at www.vuw.ac.nz/policy/academicgrievances.

Plagiarism

Victoria University defines plagiarism as the copying of ideas, organisation, wording or anything else from another source without appropriate reference or acknowledgement so that it appears to be one's own work. This includes published and unpublished work, the Internet and the work of other students and staff. Plagiarism is an example of misconduct in the Statute of Student Conduct. Students who have plagiarised are subject to a range of penalties under the Statute. See the website: www.vuw.ac.nz/policy/StudentConduct

Reasonable Accommodation Policy

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities the same opportunity as other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, please contact the Course Coordinator as early in the course as possible. The name of the Disability Liaison Person can be obtained from the IMBA Programme Director.

Appeals/Concerns/Statute on Conduct

If you have any concerns with your courses, you should first talk with the lecturer concerned and, if you are not satisfied with the result of that meeting, contact the Director of the IMBA programme. The University has developed independent procedures for dealing with academic grievances and complaints. These procedures are set out in the Statute on Academic Grievances in the University Calendar.

Session Schedule: IMBA 516 – 2007

<i>Session</i>	<i>Date</i>	<i>Topic</i>	<i>B, M & A Chapters</i>
1	24 March 2 pm - 4 pm	Course introduction Financial markets and institutions	1, 14, 15
2	24 March 4 pm - 6 pm	Discount rates and present values	2, 3
3	24 March 7 pm – 9 pm	Valuing bonds and shares NPV analysis and other investment criteria	4 5, 6
4	25 March 11 am – 1 pm	Risk, return and the opportunity cost of capital Portfolio theory and the CAPM	7 8
5	25 March 1 pm – 2 pm & 3 pm – 4 pm	Capital budgeting and risk Financing and valuation – the WACC, and APV	9 19
6	25 March 4 pm – 6 pm	Practical problems in capital budgeting	10, 11, 12
7	28 April 2 pm - 4 pm	Market efficiency – the EMH	13
8	28 April 4 pm - 6 pm	Payout policy	16
9	28 April 7 pm – 9 pm	Capital structure policy	17, 18, 25
10	29 April 11 am – 1 pm	Financial options Real options	20, 21 22
11	29 April 1 pm – 2 pm & 3 pm – 4 pm	Managing risks	27, 28
12	29 April 4 pm – 6 pm	Individual assignment feedback and discussion General course discussion and queries	

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IMBA 516 – Teaching Objectives

Session 1 – Course introduction, and Overview of financial markets and institutions

Course Introduction:

- 1) To get settled into course
- 2) To understand course objectives and expectations
- 3) Provide an overview of the course coverage and key ideas

Financial Markets and Institutions:

- 1) Provide an overview of the corporate finance decision context

By the end of this lecture you should have an understanding of the key topic areas and ideas of corporate finance, and the markets and institutions within which corporate finance decisions are made.

Session 2 – Discount rates and present values

- 1) Introduce the basics of financial mathematics – compounding and discounting
- 2) Set out the conceptual basis for discount rates used to produce present values of cash flows, while leaving details of how discount rates are calculated (relating return and risk, as well as other factors such as financing mix) to Sessions 4 and 5
- 3) Define present values (PVs) and net present values (NPVs)
- 4) Relate the use of market-determined discount rates with shareholder wealth maximisation when managers use the NPV criterion for investment selection (Fisher Separation Theorem)
- 5) Set out some special case valuation formulae – level and growing perpetuities, and level annuities
- 6) Discuss the appropriate treatment of price inflation in cash flows and discount rates when computing PVs and NPVs

By the end of this lecture you should understand why cash flows are discounted for time and risk to produce their present (or net present) value, and why NPV appropriately measures value when calculated using market-determined discount rates. You should also be able to recognise when the special case valuation formulae simplify valuations, and how real and nominal cash flows, and real and nominal discount rates, are computed.

Session 3 – Valuing bonds and shares, and NPV analysis and other investment criteria

- 1) Extend Session 2 discussion to the valuation of common financial instruments: bonds and shares
- 2) Show why NPV as an investment criterion is superior to Book Rate of Return, Payback Period, and Internal Rate of Return (IRR) alternatives
- 3) Set out principles for determining cash flows for valuation purposes (assuming the cash flows are to be discounted using the so-called Weighted Average Cost of Capital, or WACC, as discussed in Session 5)
- 4) Mention some refinements to NPV analysis when comparing projects of unequal lives (or of unequal scale, when capital is rationed)

By the end of this lecture you should be able to value bonds and shares. You should understand why the NPV investment criterion is to be preferred over its rivals, and the circumstances in which raw NPVs for competing investments cannot be used (and refinements required). You should also understand the principles for defining cash flows required for valuation.

Session 4 – Risk, return and the opportunity cost of capital, and Portfolio theory and the CAPM

- 1) Introduce statistical concepts for defining risk and return – expected (or mean) rate of return, and the variance (or standard deviation) of rate of return
- 2) Extend these concepts to include measures of return co-movement (covariance and correlation) for two or more assets, so that expected return and return variance can be computed for portfolios of assets
- 3) Discuss the benefits, and limits, of portfolio diversification – enabling a given expected rate of return to be achieved but with a lower return variance (introducing concepts of the “efficient set” and the “market portfolio”)
- 4) Show how total portfolio return risk can be decomposed into diversifiable and undiversifiable components, and why only the latter should be “priced” in expected return to compensate investors for bearing it (introducing concepts of “beta” and “portfolio beta”)
- 5) Set out models for explicitly relating expected (or required) rate of return with given measures of risk:
 - a) Capital Asset Pricing Model (CAPM)
 - b) Arbitrage Pricing Theory (APT)
 - c) Three-Factor Model

By the end of this lecture you should understand the basics of portfolio theory, and why/how only undiversifiable (or systematic) risk is priced in the most common model relating risk and return (the CAPM). You should understand what “beta” measures and how it is calculated. You should also be aware of challengers to the CAPM.

Session 5 – Capital budgeting and risk, and Financing and valuation: the WACC, and APV

- 1) Set out the “value additivity principle” which enables finance managers to evaluate investment projects on a stand-alone basis
- 2) Define “financial leverage” or “financial gearing”
- 3) Show that the risk of a firm’s cash flows is determined by the nature of its assets, and introduce the concept of “cost of capital”
- 4) Show how a firm’s financial leverage apportions the risk of its cash flows among its different investor classes – extend our discussion of “beta” from Session 4 to include different types of beta, and show how they are related
- 5) Define the “textbook WACC”, and discuss its implementation and strengths/limitations
- 6) Introduce alternatives to WACC-based valuations – the flow-to-equity (FTE) method, and adjusted present value (APV)

By the end of this session you should understand how changes in a firm’s capital structure (its financial leverage) affect the returns required by the firm’s different classes of investors (i.e. its lenders and shareholders), and how these changes feed through to the firm’s overall cost of capital (as measured by its textbook WACC). Understand where alternatives to WACC-based valuations might be preferred.

Session 6 – Practical problems in capital budgeting

- 1) Set out techniques for understanding and producing robust project valuations (sensitivity analysis, scenario analysis, breakeven analysis, Monte Carlo simulation)
- 2) Discuss the economics of where positive project NPV comes (or does not come) from
- 3) Show how decision trees can be used to extend NPV analysis to reflect the value of the real-life ability of finance managers to adapt projects in the light of new information arising as projects unfold (“real options”)
- 4) Introduce principal-agent conflicts in the corporate finance context, and discuss competing measures of financial performance

By the end of this session you should be able to apply a range of techniques to produce robust NPVs, and to critically appraise how positive project NPV arises. You should also be able to use decision trees to evaluate common types of “real options”. You should understand why performance measurement is important in the context of principal-agent conflicts, and be aware of some competing approaches.

Session 7 – Market efficiency: the EMH

- 1) Define “fair value” and “fair expected rate of return”
- 2) Argue why buying and selling financial (rather than real) assets should have zero NPVs
- 3) Define an “efficient market”, and sufficient conditions for market efficiency to arise
- 4) Discuss the definitions, implications and evidence in respect of three sub-classes of the Efficient Market Hypothesis (EMH) – weak form (WF), semi-strong form (SSF), and strong form (SF) market efficiency
- 5) Set out the behavioural finance challenge to market efficiency, as well as EMH “anomalies”
- 6) Discuss the implications of market efficiency for finance managers

By the end of this session you should understand what is meant by “efficient market”. You should also be aware of the nature and strengths/weaknesses of the three main variants of the EMH. You should understand why either trading financial assets should have a zero NPV, or the conditions under which you might expect to trade such assets with a non-zero NPV.

Session 8 – Payout policy

- 1) Define what is meant by “payouts” – dividends and share repurchases
- 2) Set out some dividend payment mechanics, and what they imply for changes in share prices
- 3) Summarise actual firm payout behaviour, and introduce some payout policy “puzzles”
- 4) Argue why firms should not be able to affect their share value by changing their payout policy (“Modigliani-Miller (MM) dividend irrelevance”, and “homemade dividends”)
- 5) Show how investor tax preferences and equity issuance costs can affect the desirability of dividend payments relative to share repurchases
- 6) Summarise other arguments for/against dividend payments
- 7) Summarise the theory and evidence on share repurchases (as well as stock dividends and splits) as alternatives to cash dividends

By the end of this session you should understand the debates surrounding the desirability of cash dividends relative to share repurchases.

Session 9 – Capital structure policy

- 1) Define what is meant by optimal capital structure, and the market values of unlevered firm “U”, and otherwise identical levered firm “L”
- 2) Compare and contrast the features of debt and equity
- 3) Set out formulas showing how the market value of L changes relative to that of U as financial leverage changes in the presence of:
 - a) no taxes (MM Proposition I with no taxes)
 - b) in the presence of just corporate taxes (MM Proposition I with corporate taxes), and
 - c) in the presence of both corporate and investor-level taxes (Miller’s Model)
- 4) Show how financial distress and bankruptcy costs, and the agency costs of debt and equity, affect these models’ predictions regarding optimal capital structure

By the end of this session you should understand the debates surrounding capital structure, and be able to apply the main results and arguments in determining the optimal capital structure for any given firm or industry.

Session 10 – Financial options, and Real options

- 1) Define different types of financial option – European and American “put” and “call” options
- 2) Show how combinations of options with other securities produce specific payoff profiles – “position diagrams” and “profit diagrams”
- 3) Discuss option concepts – “put-call parity”, and using options ideas to reinterpret debt and equity
- 4) Set out basic option valuation approaches, including the famous “Black-Scholes option pricing model (B-S OPM)”
- 5) Briefly revisit Session 6’s real options approach with these option valuation models in mind

By the end of this session you should be conversant with option terminology and ideas/uses, and be able to apply basic option valuation techniques. You should also be able to see how such approaches can be used to refine and augment real options analyses.

Session 11 – Managing risks

- 1) Define “hedging” and “speculation”
- 2) Discuss the roles of insurance, and of various classes of financial instrument (futures, forwards, swaps), in managing risks
- 3) Set out key exchange rate definitions and relationships, and illustrate how different types of exchange rate trading can affect risks

By the end of this session you should have a broad understanding of how a firm’s risks can be managed through some combination of insurance and financial instruments/trades, and when and if it is desirable to do so.

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