Teaching Dossier

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Biographical Information

Contact Information.

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Educational Background.

2014 MA & Ph.D in Economics, University of Victoria.
2005 BSc with Distinction in Economics with Business and Finance option, University of Victoria.

Reflections on Teaching

A professor once told me: “teaching is the best way to revisit both tested and untested theories so that one could reinforce and, more importantly, challenge his or her understanding. Teaching is also the best way to acquire new ideas and facts through various interactions with the students. And foremost, teaching is one of the best ways to contribute to the development of the society by ensuring knowledge is properly transferred to the students.” This has been the core of my teaching philosophy and because of this I find great joys in teaching and continue to improve my teaching effectiveness.

Teaching Philosophy

Teaching is both a privilege and a responsibility of the highest order. It is an excellent opportunity to witness and to be part of the personal and educational journeys of students.

I believe that teaching is not just about delivering content but is rather about creating academically-based, yet personally engaging and contextualized educational environments that are both rigorous and meaningful. Influenced by this perception, I believe it is extremely important for teachers to provide an educational environment that interface teaching and learning together through course content and curriculum. In particular, teachers need to continually communicate to students the connections between subject matter, theory, course learning objectives, and real-world applications. In addition, teachers need to foster independence, collaborative work, and to encourage students to set their own learning goals, and to continually critically question and engage with the course material.

I approach my teaching with great passion, enthusiasm, as well as dedication to my students. I employ multiple strategies and approaches in my classrooms, all of which display my commitment to fostering engaging, challenging, active, and collaborative learning environments. I am also an adaptive and creative educator who creates flexible, open, and accessible learning environments that foster intellectual curiosity, critical thinking, and learner independence. I also use multiple forms of assessment throughout my courses to ensure that students have varied ways of sharing and making knowledge. I also incorporate mid-semester instructor and course evaluations in my classes, and I endeavor to respond to constructive student feedback to continue to develop my teaching approach and classroom environments. I am also a keen, passionate, and active researcher, and I continually incorporate my research projects and skills into my courses in order to expose my students to work at the intersection of theory, practice, and research.

I have had the honor of teaching over 450 undergraduate students through a fourth year business course (COMM 486X) and four second year Microeconomics courses (ECON 203). Through these courses, I endeavor to be a critically reflective practitioner, and to continually challenge myself to become an ever-better teacher, facilitator, and learner in order to provide students with the space and the freedom to learn. Teaching is a challenging and stimulating vocation, but it is also a difficult skill that needs continual attending to and developing.

Teaching Approach

Curriculum design & structuring the classroom.

My approach to curriculum design, content delivery, and structuring classroom environment emerges from a combination of my experiences with teaching and my years in academic support and development. For me, the students, who come from various different backgrounds, are the central piece that will determine how a course is designed and how the academic content is delivered. As such, course design and classroom structure must be dedicated to a creation of a flexible, open, and accessible learning environment that fosters intellectual curiosity, critical self-reflection, learner independence, and active engagement through integrated and interdisciplinary learning. Also, the combination of my background in teaching and my years in academic support and development not only informs my approach to teaching, but also enriches the learning environment created for my students. This is the foundation of my curriculum design and content delivery techniques.

Teaching & content delivery techniques.

I do not subscribe to one main way of teaching or presenting material in the classroom. In fact, as students come from numerous different backgrounds, it is important for an educator to be open, flexible, and innovative in addressing specific needs of the students and in delivering different types of curriculum. I am creative and innovative in the classroom, and I continually try new strategies and techniques to encourage student engagement, enhance the classroom experience, and deepen learning. The following is a non-exhaustive list of some teaching, learning, and facilitation techniques that I have used within the classroom.

- Lecture
- Facilitated class discussions
- Critical (written) reflection
- Small group discussion
- Debates
- Peer reviewed presentations
- Peer editing, evaluation, and critiquing
- Guest speakers

Summary of Teaching Responsibilities

In this section, I describe my primary teaching responsibilities and also briefly describe the courses I have taught in the period of 2009 to 2014.

Courses Taught as Instructor.

ENTREPRENEURIAL FINANCE- UBC COMM 486X (2014)

It was a privilege and challenging experience to teach a senior business course. Immediately after receiving this teaching assignment, I knew I needed to spend a great deal of time to prepare for it as it was my first time teaching senior business students.

The focus of this course is on the financial aspects of entrepreneurship. This course is designed for a diverse group of students. Those who want to start an entrepreneurial company will appreciate detailed discussions on the day-to-day challenges faced by the entrepreneurs such as evaluating financing needs, attracting various sources of external financing, etc. Students who plan a career path on the investing side, such as working for banks or venture capital firms, will find interest in the discussion of venture selection and valuation, where we look at a number of screening criteria and valuation techniques. Finally, this course is meant for anybody with a curious mind and a willingness to combine serious analysis with creative thinking.

Throughout this course, I continually developed my course design adopting immediate feedback from the students. I quickly realized that it is important and highly effective to use real-life stories to illustrate theoretical concepts. The use of case-base teaching thus became my main module of teaching and delivering course content. I also invited guest speakers, who are well-known local investors. The use of guest speakers were greatly welcomed by the students as they were able to make a clearer connection between the theories taught in class and the practices adopted by practitioners outside of the classroom.

INTERMEDIATE MICROECONOMICS – UVIC ECON 203 (2009 – 2011)

It is an excellent teaching and learning opportunity for me to be able to teach the same course four times within two years. It provided me with the opportunity to adopt changes to the course curriculum and assignment structure, based on past experiences and feedbacks received from students and mentors.

This intermediate microeconomics course is designed to help students "think like an economist" and that economic agents faces trade-offs when making

choices. Topics included consumer theory, producer theory, market competition, and basic game theory.

Perhaps the most challenging task when teaching this course is to be able to help second year students, who often have very little economics training, deepen their understanding of the theories. To facilitate this process, I insert a large number of numerical exercises and examples between each theory sessions. I also created an accessible and classroom environment where students feel encouraged to ask questions in or after class. In addition, I searched, either searching online or talking to other faculty members, for the most effective approach to deliver the course content that can enrich the students' understanding of many challenging economics concepts.

Course feedback from students was quite satisfactory. Students praise my effectiveness as an instructor, my passion in teaching, my dedication, and, most importantly, my ability to effectively deliver course content.

Courses Taught as Teaching Assistant.

LIST OF COURSES TAUGHT AS TEACHING ASSISTANT – UVIC

(2005 – 2013)

- ECON 203: Intermediate Microeconomics
- ECON 204: Intermediate Macroeconomics
- ECON 306: International Economics
- ECON 310A/B: Industrial Organization
- ECON 313: Intermediate II Microeconomics.
- ECON 333: Economic growth
- ECON 400: Advanced Microeconomics
- ECON 435: Financial Economics
- ECON 454: Corporate Finance
- ECON 545: Econometrics (Graduate level)

Course description: During my graduate study, I had served as a teaching assistant for many different courses ranging from the introductory level to the graduate level. In addition, I was assigned to a wide range of economic courses including Micro, Macro, Development and Growth, Corporate Finance, and Econometrics. This teaching assistant experience reinforced and expanded my understanding of various areas in the study of economics.

Teaching Assistant Responsibilities: As a teaching assistant, one of my main tasks was to generate and facilitate an effective communication channel between instructors and students. Specifically, I brought student's concerns to the instructor's attention and delivered the instructor's feedbacks to the students in a timely fashion. I also helped the students by assisting them with numerous exercises that could reinforce their understanding of the theoretical

concepts. Furthermore, beside my grading duty, I also assisted the instructors in developing assignments, midterm, and final exam.

Information from Students

Summary of Student Ratings

The following ratings are the mean values for the end of term evaluations that state my overall rating as an instructor. The scale rages from 1 (very poor) to 5 (excellent). Detailed teaching evaluations are in the appendix.

Courses	***Periods***	***Teaching Ability***		***Course Design***	
		Mean	***Median***	***Mean***	***Median***
ECON 203	Sep 2009 - Dec 2009	3.86	3.94	3.83	3.85
	Jan 2010 - Apr 2010	4.13	4.25	3.94	4.00
	Jan 2011 - Apr 2011	4.43	4.50	4.12	4.00
	Sep 2011 - Dec 2011	4.12	4.13	3.88	3.86
COMM 486X	Jan 2014 – April 2014	3.84	4.00	3.64	3.8

Appendix

List of documents included in the appendix.

1. Course syllabus for UBC - COMM486X.
2. Example of materials developed for UBC – COMM486X
3. Course Evaluation Report UBC – COMM 486X.
4. Course syllabus for UVIC - ECON203
5. Snapshot of the UVIC – ECON203 course website.
6. Example of materials developed for UVIC - ECON203.
7. Course Evaluation Reports UVIC – ECON203.

Entrepreneurial Finance

Course Information:
Division: SBE
Term/period: Winter 2014
Instructor: Dan H. Vo.
Email: dan.vo@sauder.ubc.ca
Office: HA284D
Office hours: TBD.
Class meeting times: Tuesday and Thursday 11:00am – 12:30pm
Course duration: Jan 7th to Apr 8th 2014
Classroom location: HA243.

COURSE DESCRIPTION

The focus of this course is on the financial aspects of entrepreneurship. This course is designed for a diverse group of students. Those who want to start an entrepreneurial company will appreciate detailed discussions on the day-to-day challenges faced by the entrepreneurs such as evaluating financing needs, attracting various sources of external financing, etc. Students who plan a career path on the investing side, such as working for banks or venture capital firms, will find interest in the discussion of venture selection and valuation, where we look at a number of screening criteria and valuation techniques. Finally, this course is meant for anybody with a curious mind and a willingness to combine serious analysis with creative thinking.

The course has a good blend of lectures, case studies and exercises. We will also try to have some guest speakers and a few other varied classes. The details will be discussed in the first week of class.

The purpose of this course is

1. To introduce students to the topics of entrepreneurial finance.
2. To present various sources of external financing for entrepreneurial companies.
3. To demonstrate a variety of challenges faced by the entrepreneurs in the process of attracting funding for their small businesses.
4. To equip students with tools that they can use as an entrepreneur or as an investor.

LEARNING OBJECTIVES

Students will be able to:
1. Understand the complexities of raising funds for novel ideas.
2. Know what information is necessary to attract investors.
3. Generate financial projections for start-ups
4. Critically evaluate a business plan.
5. Perform alternative valuations methods to assess the valuation and price of investment deals.
6. Understand and how to prioritize contractual clauses in a term sheet negotiation.
7. Assess public policies towards the financing of entrepreneurs.

TEXTBOOK & READING MATERIALS:

We will use a textbook and a package of 8 business school notes and cases.

The main textbook used in this course is:
***Entrepreneurial Finance* by Leach and Melicher, 4th edition. ISBN-13:978-0-538-47815-1.**

List of required cases and notes:

1. Athleta, (HBS 9-803-045)
2. How Venture Capitalists Evaluate Potential Venture Opportunities (HBS 9-805-019)
3. Hardina Smythe, (HBS 9-811-073)
4. Facebook IPO (Ivey No. 9B12N031)
5. Nantucket Nectars: The Exit (HBS 9-810-041)
6. Angels in British Columbia, (HBS 9-811-100)
7. Musings of a Queen, Mimeo UBC.

Tentative Course Outline

Class	Week		Date	Topic	Type	Readings	Assignment
1	1	Tues	7-Jan	Introduction	Lecture		
2	1	Thurs	9-Jan	Introduction	Lecture	Chapter 1	
3	2	Tues	14-Jan	Measuring & Evaluating Financial Performance	Lecture	Chapter 4 & 5	
4	2	Thurs	16-Jan	Measuring & Evaluating Financial Performance	Lecture	Chapter 4 & 5	
5	3	Tues	21-Jan	Financial Projections	Lecture	Chapter 6	
6	3	Thurs	23-Jan	Financial Projections	Lecture	Chapter 6	
7	4	Tues	28-Jan	Valuation	Lecture	Chapter 9 & 10	
8	4	Thurs	30-Jan	Valuation	Lecture	Chapter 9 & 10	
9	5	Tues	4-Feb	Valuation	Lecture	Chapter 9 & 10	
10	5	Thurs	6-Feb	Valuation	Case	Case: Athleta – Financial Projection & Valuation	Case Prep # 1 & 2
11	6	Tues	11-Feb	Review	Review	Midterm review.	
12	6	Thurs	13-Feb	Midterm	Midterm		
		Tues	18-Feb	BREAK WEEK			
		Thurs	20-Feb	BREAK WEEK			
13	7	Tues	25-Feb	Venture Capital and Security Structures	Lecture	How VC Evaluate Potential Venture Opportunities	
14	7	Thurs	27-Feb	Venture Capital and Security Structures	Lecture	Case: Hardina – VC Selection	Case Prep #3
15	8	Tues	4-Mar	Venture Capital and Security Structures	Lecture	Chapter 11 & 13	

Class	Week		Date	Topic	Type	Readings	Assignment
16	8	Thurs	6-Mar	Venture Capital and Security Structures	Lecture	Chapter 11 & 13	
17	9	Tues	11-Mar	Venture Capital and Security Structures	Lecture	Chapter 11 & 13	
18	9	Thurs	13-Mar	Harvesting	Lecture	Chapter 14 & 15	
19	10	Tues	18-Mar	Harvesting	Case	Case: Facebook IPO	Case Prep #4
20	10	Thurs	20-Mar	Harvesting	Case	Case: Nantucket M&A	Case Prep #5
21	11	Tues	25-Mar	*TBD*	Guest		
22	11	Thurs	27-Mar	Alternative Sources of Financing	Lecture	Chapter 3 & 12	
23	12	Tues	1-Apr	Policy perspective	Case	Angels in BC	
24	12	Thurs	3-Apr	Presentations	Case	Musings of a Queen	Group presentations
25	13	Tues	8-Apr	Review	Review		

ASSESSMENT

Class Participation:	5%
5 Case Preps (best of 4 or 5% each)	20%
Group Presentation	15%
One midterm:	25%.
Final (cumulative):	35%.

Your percentage grade translates to a UBC letter grade as follows:

A+ 90-100	**B+** 75-79	**C+** 60-64	**F** 0-49
A 85-89	**B** 70-74	**C** 55-59	
A- 80-84	**B-** 65-69	**D** 50-54	

No E grade is assigned.

Grading: All questions about grading should be dealt with **within 1 week after the grade was returned**. After one week, your grade is no longer subject to change.

Class Participation: I will take class attendance at the beginning of each class. Your grade will be affected if you miss a class. If you miss 5 classes or more, you may lose all points for class participation.

Case Preps: There will be 5 case-preparation assignments. Only the best 4 case preparation assignments are counted and are worth 5% each toward your final grade for a total of 20%. You are encouraged to prepare work on the case-preparation assignments in a small group. However, each student must write his own case-prep assignment in his or her own words. Plagiarism will result in a 0.

Group Presentation: As a group, you are required to prepare for a group presentation that is worth 15% to your final grade.

Midterm: There will be only one midterm and is worth 25% toward your final grade. **There will be no make-up midterm**. However:

- You will receive the final exam grade for the missing midterm exam **if** you contact me no later than the time the test ends and provide me with the relevant documentation, e.g. a doctor's certificate in case of illness within one week of the midterm exam date.
- You will get 0 otherwise.

Final Exam: There will be one final and is worth 35% toward your final grade. The final is accumulative. **There will be no make-up final exam.** Anyone that misses the final exam will get zero points for it.

**** Note that, there will be no special accommodation if travel plans conflict with the final examination. Please be advised not to make travel plans until after the examination timetable has been finalized by record services.*

MISCELLANEOUS

Setting up an Appointment: When making an appointment by email! I would like you to put "COMM486X" in the subject of your email and indicate a few (3 or more) time slots that work for you.

Connect: Course material will be updated on Connect. Please check the Connect website regularly. (http://elearning.ubc.ca/connect/)

COMM 486X – SPRING 2014
Entrepreneurial Finance.
Midterm
Thursday Feb13th, 2013 – 80 Minutes.

This Midterm consists of two parts. Part 1 contains 10 multiple choice questions that are worth 2.5 points each for a total of 25 points. Part 2 has three questions that are worth 55 points. In total you can earn 80 points, i.e. a point per minute. Good luck!

PART 1: MULTIPLE CHOICE QUESTIONS (25 points)

Q1. The balance sheet equation states that total assets =

A. total liabilities + depreciation
B. total liabilities + owners' equity
C. owners' equity + net income
D. owners' equity + current liabilities
E. total liabilities + net income

Q2. "Net cash burn" occurs when the sum of which of the following items is negative?

A. cash flows from operations and financing
B. cash flows from investing and financing
C. cash flows from operations and investing
D. cash flows from net income and depreciation
E. cash flows from operations and net income

Q3. While entrepreneurial opportunities come from an almost unlimited number of sources, this textbook focuses on:

A. societal changes
B. demographic changes
C. technological changes
D. all of the above
E. none of the above

Q4. In breakeven analysis, solving for when EBITDA is equal to zero gives breakeven in terms of:

A. economic revenues
B. variable costs
C. survival revenues
D. fixed costs
E. none of the above

Q5. Which one of the following conversion periods operates to reduce the length of the cash conversion cycle?
A. inventory-to-sale conversion period
B. sale-to-cash conversion period
C. purchase-to-payment conversion period
D. fixed assets-to-usage conversion period
E. all of the above

Q6. The difference between a venture's ability to generate cash to pay interest and the amount of interest it has to pay is determined by which of the following ratios?
A. fixed charges coverage
B. debt to asset
C. equity multiplier
D. debt to equity
E. interest coverage

Q7. Which one of the following is not a basic ratio techniques used to conduct financial analysis?
A. trend analysis
B. sensitivity analysis
C. cross-sectional analysis
D. industry comparables analysis
E. none of the above.

Q8. "Required cash" is?
A. the cash needed to pay interest expense and tax.
B. a valuation method for early stage ventures
C. cash needed to cover a venture's day-to-day operations
D. cash available to pay as a dividend
E. none of the above.

Q9. A "new" venture usually begins its sales forecast by first:
A. forecasting industry sales and expressing the venture's sales as a percent of industry sales
B. using a "bottom-up" market-driven approach
C. extrapolating past sales
D. working with existing and potential customers
E. none of the above.

Q10. The financial funds needed to acquire assets necessary to support a firm's sales growth is called:
A. spontaneously generated funds
B. additional funds needed
C. addition in retained earnings
D. financial capital needed
E. none of the above.

PART 2: SHORT ANSWER QUESTIONS (55 points)

Question 2-1 (10 points): "While it is true that financial projections can be subjective and highly speculative, they are nonetheless of vital importance to the entrepreneurs and investors for at least three important reasons. What are these three reasons? You must also provide detailed explanations as to why you think they are important reasons.

Question 2-2 (25 points): VicEdge Capital plans to make an investment worth of 3,000,000 in a ChitChatBlock.com (CCB), a website that collects information on local activities for chitchaters who want to…just chitchat. As a new site, CCB has no revenue. However CCB expects to have a net income of 3,000,000 in Year 4. Another company, ChitChatSquare (CCS), a comparable firm, currently trades in the over-the-counter market at $45/share. CCS has a net income of $600,000 and has 200,000 shares outstanding.

A. Apply the comparable method to determine the value of the CCB at the end of four years (5 points).

B. If VicEdge Capital wants a 40% annual rate of return on similar investments, compute the percentage of ownership of CCB that VicEdge Capital needs to acquire in order to achieve the 40% annual rate of return? If you failed to produce an answer for part A, use 90,000,000 to answer the remaining questions. (5 points).

C. Assuming that CCB currently has 100,000 shares of common stock outstanding, what is the price per share, pre and post market valuation? (5 points)

D. Consider the following scenario. In year 2, CCB needs more capital to grow. CCB founder proposes the following package: $5,000,000 in exchange for 16% of ownership. (This is completely unanticipated by VicEdge Capital when it invested into CCB at time 0). So far, only KelEdge Capital seems to be interested in the deal. Please do the following: **(i)** compute KelEdge Capital expected return if it takes the proposal, i.e. invest 5,000,000 for 16% of ownership, assuming the projected net income in year 4 remains the same. **(ii)** Compute the resulting percentage ownership for the founder and for VicEdge Capital. If VicEdge Capital wants to maintain its percentage ownership as computed in part B, how much of that 5,000,000 investment should VicEdge contribute (i.e. forming a syndicate with KelEdge capital)? (10 points)

Question 2-3 (20 points):

Below is balance sheets and income statement of VOCOMM Corporation

	2012	**2013**
Cash	$ 50,000	$ 50,000
Accounts receivable	200,000	300,000
Inventories	450,000	570,000
Total current assets	700,000	920,000
Fixed assets, net	300,000	380,000
Total assets	$1,000,000	$1,300,000
Accounts payable	130,000	$ 180,000
Accruals	50,000	70,000
Bank loan	90,000	90,000

Total current liabilities	270,000	340,000
Long-term debt	400,000	550,000
Common stock ($.05 par)	50,000	50,000
Additional paid-in-capital	200,000	200,000
Retained earnings	80,000	160,000
Total liabilities and equity	$1,000,000	$1,300,000

	2012	**2013**
Net sales	$1,300,000	$1,600,000
Cost of goods sold	780,000	960,000
Gross profit	520,000	640,000
Marketing	130,000	160,000
General and administrative	150,000	150,000
Depreciation	40,000	55,000
EBIT	200,000	275,000
Interest	45,000	55,000
Earnings before taxes	155,000	220,000
Income taxes (40% rate)	62,000	88,000
Net income	$ 93,000	$ 132,000
Cash dividends	$37,000	$52,000

A. Based on the 2013 financial statements relationships, compute VOCOMM's retention rate in 2013. Also estimate the sustainable sales growth rate in 2014 for the VOCOMM Corporation if VOCOMM would like to maintain such retention rate using 2012 and 2013 historical financial statements. (5 points)

B. Assume the VOCOMM Corp wants to grow its sales by 60 percent in 2014 over its 2013 level. Estimate the additional funds needed that will be necessary to support this rapid increase in sales assuming it maintains the retention rate. (5 points)

C. Sales are forecasted to increase an additional 40 percent in 2015 over 2014. Estimate the two-year AFN that the Munich Corporation will need to finance its 2014 and 2015 sales growth plans assuming VOCOMM maintains the same retention rate. Discuss possible ways that VOCOMM can do to maintain such growth rate in sales with a lower amount of AFN (Hint – examine what VOCOMM can do with each pieces of the AFN formula). (10 points)

---END---

Formula Sheet

- Current ratio = $\frac{(Ave.)\ Curr\ Assets}{(Ave.)\ Curr.\ Liabilities}$
- Quick ratio = $\frac{(Ave.)Curr\ Assets - (Ave.)\ Inventories}{(Ave.)\ Curr.\ Liabilities}$
- NWC-to-TA ratio = $\frac{(Ave.)Curr\ Assets - (Ave.)\ Curr.\ Liabilities}{(Ave.)\ Total\ Assets}$
- Inventory-to-sale conversion period = $\frac{(Ave.)Inventories}{COGS/365}$
- Sale-to-cash conversion period = $\frac{(Ave.)Receivables}{Net\ Sales/365}$
- Purchase-to-payment conversion period = $\frac{(Ave.)Payables + (Ave.)Accrued\ Liabilities}{\frac{COGS}{365}}$
- Cash conversion cycle = Inventory-to-sale conversion + Sale-to-cash conversion – purchase-to-payment conversion.
- Total-debt-to-TA = $\frac{(Ave.)Total\ Debt}{(Ave.)Total\ Assets}$
- Equity Multiplier = $\frac{(Ave.)Total\ Assets}{(Ave.)\ Total\ Equity}$
- Debt-to-equity = $\frac{(Ave.)Total\ Debt}{(Ave.)Total\ Equity}$
- Current-liabilities-to-total-debt = $\frac{(Ave.)Curr\ Liabilities}{(Ave.)Total\ Debt}$
- Interest coverage = $\frac{EBITDA}{Interest\ Payment}$
- Gross profit margin = $\frac{Net\ Sales - COGS}{Net\ Sales}$
- Operating profit margin = $\frac{EBIT}{Net\ Sales}$
- Net profit margin = $\frac{Net\ Profit}{Net\ Sales}$
- NOPAT margin = $\frac{EBIT(1 - tax\ rate)}{Net\ Sales}$
- Tax shield = $Interest * tax\ rate$
- Sales-to-TA = $\frac{Net\ Sales}{(Ave.)Total\ Assets}$
- Return on asset = $\frac{Net\ Profit}{(Ave.)Total\ Assets}$
- Return on equity = $\frac{Net\ Profit}{(Ave.)Total\ Equity}$
- Survival revenue SR = Fixed cost / (1 – VCRR) where VCRR is the ratio of COGS to revenue.
- Sustainable sale growth, g = $\frac{NetIncome}{NetSale} * \frac{NetSale}{TotalAsset} * \frac{TotalAsset}{Beginning\ Equity} * RR$

- Additional Financing Needs

$$AFN = \frac{TotalAsset_0}{NetSale_0}(\Delta NetSale) - \frac{Acct.Payable_0 + AccruedLiabilities_0}{NetSale_0}(\Delta NetSale) - (NetSale_1)\frac{NetIncome_0}{NetSale_0}(RetentionRate_0)$$

- Discounted cash flow valuation

$$\text{PV} = \frac{CF_t}{(1+r)^t} + \frac{CF_T}{(r_\infty - g)}/(1+r)^{T-1}$$

where t = 1…T-1, r = discount rate, g is the stable growth rate and $(r_\infty - g)$ is the cap rate for the terminal flows.

- Equity VCF = Net Income+D&A–ΔNOWC–CAPEX+Net Debt Issues
  where NOWC = (CA-SurplusCash)–(CL-Short-term Loan).
- VC valuation method.

$$\%\ Ownership\text{: } \gamma = \frac{I*(1+r)^t}{(\frac{P}{E})_{AVE}E_{i,t}}$$

$$New\ Share\ Issue = \frac{Existing\ Share * Acquired\ \%}{(1 - Acquired\ \%)}$$

COMM 486X – SPRING 2014
Entrepreneurial Finance.
Final Exam
Thursday April 17th, 2013 – 150 Minutes.

This Final consists of two parts. Part 1 contains 25 multiple choice questions that are worth 1 point each for a total of 25 points. Part 2 has three questions that are worth 55 points. In total you can earn 80 points. Good luck!

PART 1: MULTIPLE CHOICE QUESTIONS (25 points)

Q1. Which of the following has been the largest source of venture capital funds since 1979 when it was clarified that "portfolio diversification was a legitimate consideration in determining the prudence of an individual investment"?

a. pension funds
b. individuals and families
c. endowments and foundations
d. corporate venture capital
e. finance and insurance

Q2. All of the following are typically part of a venture fund's typical compensation and incentive structure except:

a. some percent annual fee on invested capital
b. a percent share of any profits to the managing general partner
c. carried interest
d. salary for the general partners
e. a, b, & d

Q3. The fund managers can distribute the return of investment back to the LPs through:

a. cash
b. stock
c. no return distribution. Why would they? In the end, they will come and ask for more capital commitment when they organize another fund anyways.
d. a & b.
e. trade credit.

Q4. Which one of the following fund structure is not a typical venture capital fund's structure

a. LP-GP structure
b. VC division of corporations
c. VC division of a financial institution.
d. Publicly listed VC
e. None of the above

Q5. Which of the following is not one of the four likely outcomes of the venture firm's screening process?

a. seek the lead investor position
b. seek a non-lead investor position
c. close the capital fund
d. refer the venture to more appropriate financial market participants
e. issue a standard letter of rejection

Q6. When screening prospective new ventures, venture capital firms must consider the nature of the proposed industry. Which of the following is not part of the screening of the proposed industry?

a. market attractiveness
b. managerial references
c. potential size
d. technology
e. threat resistance

Q7. The term "carried interest" refers to:

a. interest not currently paid but which must be paid in the future by a professional venture capitalist
b. interest transported directly to a bank
c. interest owed on a loan in default
d. the portion of profits paid to the professional venture capitalist as incentive compensation
e. none of the above

Q8. If an investment management firm is known to be a "two and twenty shop", this implies that the firm:

a. receives an annual 2% fee on invested capital, and a 20% carried interest
b. receives an annual 20% fee on invested capital, and a 2% carried interest
c. receives an annual 2% fee on gross operating profits, and a 20% carried interest
d. receives an annual 20% fee on gross operating profits, and a 2% carried interest
e. none of the above

Q9. All of the following are typical issues addressed in a term sheet except?

a. valuation
b. board structure
c. legalese
d. management fees
e. securities

Q10. Term sheets are usually drafted by:

a. the mangers of the venture seeking VC funding
b. the VC fund seeking to fund the venture
c. management and founders
d. it is usually done by an third party, in order to ensure the fair treatment of both parties
e. the limited partners.

Q11. Which of the following is an example of a put option which is out of the money?
a. The option to sell at $11, the stock is worth $12.
b. The option to buy at $13, the stock is worth $12.
c. The option to buy at $12, the stock is worth $12.
d. The option to sell at $13, the stock is worth $12.
e. The option to buy at $11, the stock is worth $12.

Q12. In a Venture Capital Fund Placement Memorandum, which of the following is not part of the fund overview?
a. restriction on size.
b. restriction on investment focus.
c. restriction on fund management.
d. restriction on partner activities.
e. restriction on investment staging.

Q13. Which of the following provides the option to transform preferred stock into common stock?
a. paid in kind preferred stock
b. cumulative preferred stock
c. participating preferred stock
d. convertible preferred stock
e. non-cumulative preferred stock

Q14. A round of financing where shares sell for a lower price than previous rounds is known as a:
a. down round
b. recessive round
c. lower round
d. *up side down round*
e. none of the above

Q15. The right to buy a specified asset at a specified price on a specified date is called:
a. a forward contract
b. an American-style put option
c. an American-style call option
d. a European-style call option
e. a European style put option

Q16. An option that can be exercised only at a specific set of dates is called a:
a. forward contract
b. lookback option
c. American-Style option
d. European-Style option
e. Bermuda-Style option

Q17. An option that can be exercised only at its expiration date is called a:
a. forward contract
b. lookback option
c. American-Style option
d. European-Style option
e. Bermuda-Style option

Q18. When screening prospective new ventures, venture capital firms consider their own funds' requirements. Which of the following is not one of the venture firm's requirements relating to its own funds?
a. investor control
b. rate of return
c. size of investment
d. probable stock listing exchange for the mature venture
e. financial provisions for investors

Q19. Which of the following is an example of a call option which is in the money?
a. The option to sell at $11, the stock is worth $12.
b. The option to buy at $13, the stock is worth $12.
c. The option to buy at $12, the stock is worth $12.
d. The option to sell at $13, the stock is worth $12.
e. The option to buy at $11, the stock is worth $12.

Q20. Generally speaking, warrants are call options that allow the holder to purchase what type of security at a specific price?
a. common stock
b. preferred stock
c. convertible debt
d. participating convertible preferred stock
e. none of the above

Q21. For existing shareholders who has less than 100% ownership of the company, pro-rata investments means that
a. % stake in the new financing round just equals their old % ownership stake
b. % stake in the new financing round is greater than their old % ownership stake
c. % stake in the new financing round is less than their old % ownership stake
d. they do not participate in the new financing round.
e. the new financing round is completely funded by existing shareholders.

Q22. The economic effect of anti-dilution is the following:
a. Outside investors will accept dilution. Therefore, the use of anti-dilution is entirely borne by the outside investors.
b. Outside investors will not accept dilution. Therefore, the use of anti-dilution is entirely borne by founders and other common stock holders.
c. Outside investors will not accept dilution. Therefore, the use of anti-dilution is entirely borne by founders, other common stock holders, and the new outside investor.
d. Outside investors will not accept dilution. Therefore, the use of anti-dilution is entirely borne by the new outside investor.
e. Outside investors will accept dilution. Therefore, the use of anti-dilution is good for the founder.

Q23. The followings are key characteristics of staged financing except for:
a. Investments are made in several installments instead of one upfront lump sum.
b. Prices of future installments is pre-set.
c. Control mechanism against entrepreneur's moral hazard problem for the VC.
d. Staging allows managing fundamental uncertainty about how much money company needs.
e. Minimize the risk of making wrong investment decision for the VC.

Q24. From the founder's point of view, what are the common concerns associated with an M&A:
a. Corporate culture
b. Managerial succession.
c. Employee retention.
d. Composition of payment
e. All of the above

Q24. From the founder's point of view, what are the common concerns associated with an M&A:
a. Corporate culture
b. Managerial succession.
c. Employee retention.
d. Composition of payment
e. All of the above

Q25. Consider the following trade credit term.

- Price p = $1000, payable in 45 days
- Discount of 5% for payment within 15 days
- Direct saving: $50
- No taking early discount means taking a loan of $950 and paying $50 for it one month later!

What is the implied interest rate?
a. r = 65%
b. r = 75%
c. r = 85%
d. r = 95%
e. r = 55%

PART 2: SHORT ANSWER QUESTIONS (55 points)

Question 2-1 (10 points): in 2012, Lololime was a new start-up that designs and sells yoga outfit for kids under 13 years of age. Due to its recent success, Lololime received a term sheet from a local angel who offered to invest $2M at a post money valuation of $5M. At the time of the offer, the founder of Lololime, Dan, had 6M shares.

Part A (5 points): Compute the pre-money valuation, price per share, number of new shares received by the local angel, ownership retained by the founder, and ownership acquired by the local angel.

Dan took the offer with no hesitation as he needed the money. Now 2014 (2 years later), Lololime needs additional funding to expand its retail outlets. In preparing for the next financing round, Dan looks at all documents including the term sheet that he received 2 years ago and notices that under future financing section, there is one provision called the full ratchet provision.

Part B (5 points): Explain to Dan what full ratchet provision means and how it could affect him.

Question 2-2 (25 points):

Peter was the owner of DomiHut Pizza, a start-up company that sold frozen organic pizza. He purchased his materials from a variety of suppliers, produced the product himself, and sold through retail stores. Peter financed the business from his personal savings. However, as the demand for his product picked up he found himself short on cash. Currently, Peter considered two options for improving his cash flow situation:

Option A: He considered stretching his payments of credit card bills which had an effective annual interest rate (including compounding) amounted to 25%.

Option B: He considered stretching his supplier payments. So far he had always paid at the due date, which was typically 30 days after receiving the goods. Recently, due to his improved relationship with the supplier, the supplier offers him the following trade credit term:

- 5% discount if he paid immediately upon delivery.
- 10% penalty if payment was received between 30 and 120 days of delivery.

Peter took out a formula that his entrepreneurial finance professor had taught him a long time ago:

$$(1-d)\,p(1+r)^{\frac{y-x}{360}} = p \Leftrightarrow (1+r) = \left(\frac{1}{1-d}\right)^{\frac{360}{y-x}}$$

Where p = price; d = % discount; r = interest rate; y = payment date; and x = delivery date.
Along with the formula, there came the following table

		Discount				
		1%	2%	3%	5%	10%
Extra Days	15	27.28%	62.40%	107.72%	242.48%	1153.66%
	30	12.82%	27.43%	44.12%	85.06%	254.07%
	45	8.37%	17.54%	27.59%	50.73%	132.31%
	60	6.22%	12.89%	20.05%	36.04%	88.17%
	90	4.10%	8.42%	12.96%	22.77%	52.42%
	120	3.06%	6.25%	9.57%	16.64%	37.17%

Part A (5 points): Do you recommend that Peter choose option A of using his credit cards, or option B of delaying payment until 120 days after delivery?

Part B (5 points): Is there some creative combination of options A and B?

Part C (10 points): Peter also considered asking his customers, the retail stores, to pay up front for the merchandise. Currently he calculated that the average payment came within 60 days of delivery. Focusing purely on the financial cost, he was debating what discount would be appropriate for retailers that paid him upon delivery. Should he offer discounts of 3%? What about 5%? And what is the maximum discount that he should offer?

Question 2-3 (25 points):

Percy is raising funding for his 20th start-up called Noisy Pig. The company planned to produce a game app in which the harder the player tap the screen, the louder the pig will oink while changing it color from pink to red.

Percy is not shy to ask anybody vaguely interested in the company whether they wanted to invest at the following standard non-negotiable terms:

1.) Percy owns 200,000 founder shares in Noisy Pig.
2.) Anyone could buy shares at a fixed price of $10/share (no negotiation over the share price).
3.) Percy is looking to raise $2M in equity (200,000 shares). However if the company does not raise at least $1M (100,000 shares) by April 30th, 2014 then the company will not take any of the money and simply fold the operations.

As the deadline is approaching, Percy is asking his brother-in-law, Rooney, to buy the first 100,000 shares. Rooney is a rich football player and certainly is not a fool. He did some research and find the following information.

a) Noisy Pig has 25% chance of "making it big", and a 75% chance of losing everything by April 30, 2015 (1 year from now).
b) Rooney thinks that there is a 10% chance that other investors would buy the additional 100,000 shares.

Part 1 (5 points): What is Rooney's required return if he just wants to get break-even in term of expected return.

Part 2 (10 points): Should Percy purchase 100,000 common stock if the exit value in case of success is estimated at around 12M?

Part 3 (10 points): Should Percy purchase 100,000 participating convertible preferred stock with face value of $1M if the exit value in case of success is estimated at around 12M?

---END---

Formula Sheet

- Current ratio = $\frac{(Ave.)\ Curr\ Assets}{(Ave.)\ Curr.\ Liabilities}$
- Quick ratio = $\frac{(Ave.)Curr\ Assets - (Ave.)\ Inventories}{(Ave.)\ Curr.\ Liabilities}$
- NWC-to-TA ratio = $\frac{(Ave.)Curr\ Assets - (Ave.)\ Curr.\ Liabilities}{(Ave.)\ Total\ Assets}$
- Inventory-to-sale conversion period = $\frac{(Ave.)Inventories}{COGS/365}$
- Sale-to-cash conversion period = $\frac{(Ave.)Receivables}{Net\ Sales/365}$
- Purchase-to-payment conversion period = $\frac{(Ave.)Payables + (Ave.)Accrued\ Liabilities}{\frac{COGS}{365}}$
- Cash conversion cycle = Inventory-to-sale conversion + Sale-to-cash conversion – purchase-to-payment conversion.
- Total-debt-to-TA = $\frac{(Ave.)Total\ Debt}{(Ave.)Total\ Assets}$
- Equity Multiplier = $\frac{(Ave.)Total\ Assets}{(Ave.)\ Total\ Equity}$
- Debt-to-equity = $\frac{(Ave.)Total\ Debt}{(Ave.)Total\ Equity}$
- Current-liabilities-to-total-debt = $\frac{(Ave.)Curr\ Liabilities}{(Ave.)Total\ Debt}$
- Interest coverage = $\frac{EBITDA}{Interest\ Payment}$
- Gross profit margin = $\frac{Net\ Sales - COGS}{Net\ Sales}$
- Operating profit margin = $\frac{EBIT}{Net\ Sales}$
- Net profit margin = $\frac{Net\ Profit}{Net\ Sales}$
- NOPAT margin = $\frac{EBIT(1 - tax\ rate)}{Net\ Sales}$
- Tax shield = $Interest * tax\ rate$
- Sales-to-TA = $\frac{Net\ Sales}{(Ave.)Total\ Assets}$
- Return on asset = $\frac{Net\ Profit}{(Ave.)Total\ Assets}$
- Return on equity = $\frac{Net\ Profit}{(Ave.)Total\ Equity}$
- Survival revenue SR = Fixed cost / (1 – VCRR) where VCRR is the ratio of COGS to revenue.
- Sustainable sale growth, g = $\frac{NetIncome}{NetSale} * \frac{NetSale}{TotalAsset} * \frac{TotalAsset}{Beginning\ Equity} * RR$

- Additional Financing Needs

$$AFN = \frac{TotalAsset_0}{NetSale_0}(\Delta NetSale) - \frac{Acct.Payable_0 + AccruedLiabilities_0}{NetSale_0}(\Delta NetSale) - (NetSale_1)\frac{NetIncome_0}{NetSale_0}(RetentionRate_0)$$

- Discounted cash flow valuation

$$\text{PV} = \frac{CF_t}{(1+r)^t} + \frac{CF_T}{(r_\infty - g)}/(1+r)^{T-1}$$

where t = 1…T-1, r = discount rate, g is the stable growth rate and $(r_\infty - g)$ is the cap rate for the terminal flows.

- Equity VCF = Net Income+D&A–ΔNOWC–CAPEX+Net Debt Issues
  where NOWC = (CA-SurplusCash)–(CL-Short-term Loan).
- VC valuation method.

$$\%\ Ownership\text{: } \gamma = \frac{I*(1+r)^t}{(\frac{P}{E})_{AVE}E_{i,t}}$$

$$New\ Share\ Issue = \frac{Existing\ Share * Acquired\ \%}{(1 - Acquired\ \%)}$$

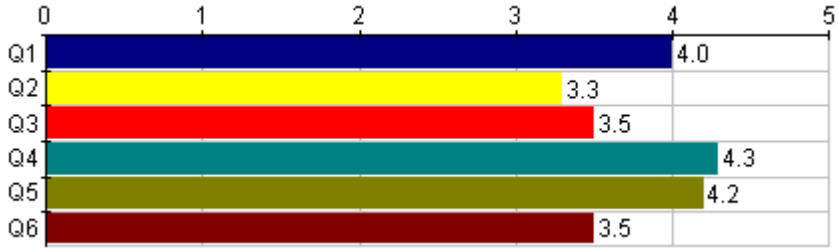
SAUDER 2013-14 WT2 (02) Survey
2013W2 (2014)

University of British Columbia
Sauder School of Business

Course: COMM 486X 201 - Special Topics in Business **Department:** COMM

Unknown Role: Dan Vo **Responses / Expected:** 23 / 37

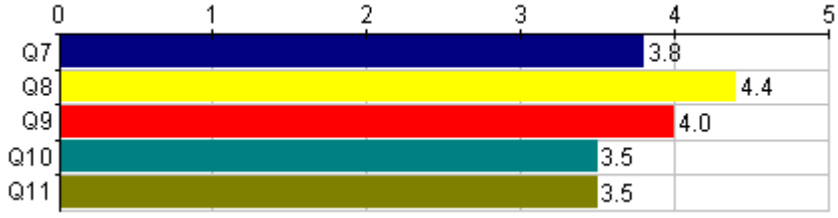
Category Instructions: *Based on a 5-point scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree, please rate your instructor on the following:*



Vo, Dan H

University Module		Responses							Individual			
		SD	D	N	A	SA	N	Mean	N/A	Med.	Mode	Std Dev
Q1	The instructor made it clear what students were expected to learn.	0	1	4	13	5	**23**	**4.0**	0	4	4	.75
Q2	The instructor communicated the subject matter effectively.	2	3	9	5	4	**23**	**3.3**	0	3	3	1.15
Q3	The instructor helped inspire interest in learning the subject matter.	0	3	10	4	5	**22**	**3.5**	0	3	3	.99
Q4	Overall, evaluation of student learning (through exams, essays, presentations, etc.) was fair.	0	0	2	13	8	**23**	**4.3**	0	4	4	.61
Q5	The instructor showed concern for student learning.	0	0	4	10	9	**23**	**4.2**	0	4	4	.72
Q6	Overall, the instructor was an effective teacher.	1	2	7	10	3	**23**	**3.5**	0	4	4	.97

Responses: [**SD**] Strongly Disagree=1 [**D**] Disagree=2 [**N**] Neutral=3 [**A**] Agree=4 [**SA**] Strongly Agree=5



Vo, Dan H

Instructor Evaluation		Responses							Individual		
		SD	D	N	A	SA	N	Mean	Med.	Mode	Std Dev
Q7	The instructor was well-prepared for classes.	1	0	6	12	4	**23**	**3.8**	4	4	.88
Q8	The instructor treated students with respect.	0	0	1	12	9	**22**	**4.4**	4	4	.57
Q9	The instructor raised challenging questions or problems.	0	1	4	13	5	**23**	**4.0**	4	4	.75

Q10	Overall, the instructor is an effective teacher.	0	4	7	9	3	**23**	**3.5**	4	4	.93
Q11	I would recommend this instructor to other students.	0	5	5	9	4	**23**	**3.5**	4	4	1.02

Responses: [**SD**] Strongly Disagree=1 [**D**] Disagree=2 [**N**] Neutral=3 [**A**] Agree=4 [**SA**] Strongly Agree=5

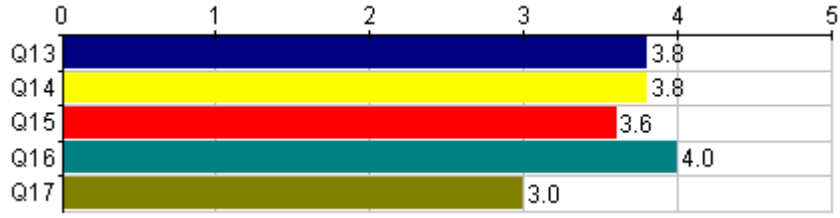
Q12 - Please comment on aspects of my teaching.

Faculty: **Vo, Dan H**

Response Rate: **43.48**% (**10** of **23**)

- Use of guest speakers was great, really outlined the necessities of angel investing etc.
- Dan is a great teacher. His jokes in class were hilarious. Thank you for being a great teacher.
- He was very committed, helpful and understanding but was not the most effective teacher and seemed confused by the grading aspect.
- I like the class discussion and key note speaker.
- Dan is a very good instructor. He is always prepared for class and does his best to engage the class in active discussions. I also appreciate his thorough review of past subjects before moving on to new topics.
- Excellent!!!
- It was your first time teaching the course, so it's understandable, but the teaching was very much "here's a formula, now try it. Here's another formula, try that now" at least at the beginning of the course. That seemed to improve somewhat as the course went on though.
- I liked the fact that the instructor invited guest speakers which was helpful to gain practical insights into venture capital and entrepreneurship. Instructor should assume students are familiar with basic accounting and finance concepts and focus his efforts on more challenging issues.
- To be perfectly honest, I felt that this course was not taught very well. Firstly, explaining the number aspects was difficult to understand because it was not explained well and the slides were hard to follow. Important formula steps were missed out because they were crammed into the power point. Furthermore, this is such a complex course so someone who doesn't have a solid background in finance puts a limitation in teaching financial concepts.

  Although, you did provide time for us when we had questions which was nice as it really helped me out throughout the course.
- So I must say, I have an incredible amount of respect for you. This subject matter is so far out of your area of expertise, yet you managed to do an adequate job while teaching. I wish that I could have taken a course that was in your field of expertise, as I'm sure that would have been a fantastic learning experience. The effort that you put forth preparing for class was extremely evident. It wasn't always smooth sailing, but towards the end of the course I thought you really started to hit your stride. The problem with this course material is that it can't just be learned from a book; you need someone that's been exposed to situations relating to the course to teach this course. I feel like I had an advantage over other students based on my ability to remember previous entrepreneurship class concepts, as well as my finance background. I can also imagine that for students without my advantages, it would have been very tough to learn this...only because this is a very math based course especially for the first half, and for someone who isn't used to finance calculations, they are extremely tough to get used to (and I think that's even true for you when you were trying to learn this course material). I also think that in the first half, you spent too much time trying to get us motivated to learn, instead of giving us practice questions that could help us learn (which takes the burden off of you); however, when the second half of the course material came along, which included no math, your teaching style boded very well. You are able to get students on the right track of thinking, the only problem is that that's not an effective way of teaching people math concepts (or finance/valuation concepts). I still must say you did a fantastic job for someone who has never been exposed to this type of material previously. Lastly, don't try and run away from telling us what's on the exam (for the midterm you were a bit apprehensive to give us specific areas to study, but for the final you were very forward and direct. The best teachers tell you exactly what you have to know, and that's appreciated by students (i.e. don't make it seem like everything from the textbook is equally important, when there are certain sections that are more important).



COMM 486X - 201

Course Materials Evaluation		**Responses**						**Course**			
		SD	**D**	**N**	**A**	**SA**	**N**	**Mean**	Med.	Mode	Std Dev
Q13	The readings (text, course notes, etc.) were important for understanding the course.	0	2	3	15	3	**23**	**3.8**	4	4	.76
Q14	The term projects (papers, assignments, etc.) provided a useful learning experience.	0	2	2	17	2	**23**	**3.8**	4	4	.70
Q15	I would recommend this course to other students.	0	4	4	12	3	**23**	**3.6**	4	4	.92
Q16	Compared to other courses at this level the workload was about right.	0	1	1	17	4	**23**	**4.0**	4	4	.62
Q17	The course material was difficult for my level of preparation.	2	5	8	6	2	**23**	**3.0**	3	3	1.08

Responses: [**SD**] Strongly Disagree=1 [**D**] Disagree=2 [**N**] Neutral=3 [**A**] Agree=4 [**SA**] Strongly Agree=5

Q18 - Please comment on the course.

Response Rate: 39.13% (**9** of **23**)

- Assignments were fair and challenging, readings were challenging as the book was 200$ and reading content was minimal.
- The second half of the course was pretty bland. I'm a numbers person and would have liked to learn more about Income Statements, Balance Sheets, Cash Flow Statements, and the exact relationship between all of them. Not so sure I learned so much after the midterm.
- I will recommend this course to other students because the material is useful and practical in real life.
- This class is a very good class for anyone thinking about going into entrepreneurship. It presents a healthy mix of both theory and real-world application. I learned a lot about how to accurately value a venture as well as the details in term structures. I think the most valuable lesson from this course was learning how to present your ideas to venture capitalists.
- Very entertaining class, students are actively responding with questions and discussions. The class never gets bored. The prof made the class really interesting. Would definitely recommend this class to everyone else!!
- The later cases didn't seem to really apply what we were learning in class so much. Maybe it's just because they were more qualitative though.
- The idea behind the course is great- the workload could have been heavier and more challenging. I would have wanted to learn venture capital valuation methods and due diligence process more in detail.
- Better slides and actually go over the complex formulas together on the board rather than on power point as it is confusing. There were so many times where you made mistakes in the power point and it just threw us off in trying to understand the concept.

  The last section of the class, which was more subjective concepts, were taught well but the numbers section could have been taught much better.
- I think the textbook was a waste, I barely used it...and when I did, it was wrong half the time. I think a lot of students felt "hanging dry" with the first two case studies; after that, it was much easier to do. I also think that putting 15% of our mark on a 5 minute presentation isn't a great way of doing things, because we spend so much time preparing, but barely get a chance to speak and explain the course concepts that we've put in. I think the midterm was fair (practice would have been nice, but I know it just wasn't attainable--it's your first time

teaching!). But perhaps we could have done more examples in class (and less discussion), and then we wouldn't have needed the practice. Thank you for all the time and effort you've put in. Even if other students didn't recognize it, I did. It's tough to teach material that's so industry dependent, but you worked really hard at getting to know the industry...but nothing can replace experience. You're a very good prof and a very nice person... I wish I could take course in your area of expertise. I hope we can keep in touch!

University of Victoria, Spring 2011
Econ 203 – A01: Intermediate Microeconomics I (24759)

Course Outline

Class: MWR 2:30 – 3:20 CORNETT B112.
Course Website: http://web.uvic.ca/~danvo/econ203spring2011/home.htm

Instructor:
Dan Vo.
Office: BEC 314
Office hours: By Appointment.
Email: danvo@uvic.ca

TAs:
Noha Abdelfattah
Office: BEC 312
Office hours: TBA
Email: nohaa@uvic.ca
Po-Hsin (Peter) Tseng
Office: BEC 314
Office hours: TBA
Email: TBA

Text
Frank, Robert H. and Ian parker, Microeconomics and Behavior, fourth Canadian edition, 2010, McGraw-Hill Ryerson Higher Education; ISBN-10:0-07-0741778; ISBN-13: 978-0-07-074177-5.

Website: http://highered.mcgraw-hill.com/classware/infoCenter.do?isbn=0070951667

About the Course

This intermediate microeconomics course is designed to reinforce and expand your understanding of the basic microeconomic theory. In the beginning of the course, we will examine the two fundamental microeconomics topics: the consumer theory and producer theory. Later, we will shift our focus toward market competition with the introduction of monopoly, oligopolistic and monopolistic competition. An introduction of the basic game theory will conclude our course.

As you will soon notice, much of the material introduced in Econ 103 will be revisited. However, you will also notice that Econ 203 emphasizes on the *technique* besides the *results*. Our goal is to master the basic tools used by many economists, and to be able to apply these in a variety of contexts to set up and solve economic problems.

Labs

There is **NO LAB** this semester. The TAs will assist you with your questions during their office hours. However, all students **must** register for either of the *(three)* lab sections – *(B01, B02 and B03)* or your tests' grades will not be recorded. You can visit any TAs office hour at your convenience.

Tentative Outline

Weeks	Topic	Chapter Reference	Important Date
Week 1 (5 – 7 Jan)	Supply and Demand	2	
Week 2 (10 – 14 Jan)	Rational Consumer's Choice	3	
Week 3 (17 – 21 Jan)	Individual and Market Demand Curves	4	
Week 4 (24 – 28 Jan)	Production and Firm's Choice	9	**Assignment 1 Due (Monday Jan 31st in the assignment box)**
Week 5 (31 – 4 Feb)	Cost	10	
Week 6 (7 – 11 Feb)	Cost	10	
Week 7 (14 – 18 Feb)	Perfect Competition	10	**Midterm #1 (Wednesday Feb 16th)**
Week 8 (21 – 25 Feb)	Reading Break		
Week 9 (28 – 4 Mar)	Monopoly and Price Discrimination	11	**Assignment 2 Due (Friday Mar 4th in the assignment box)**
Week 10 (7 – 11 Mar)	Monopoly and Price Discrimination	12	
Week 11 (14 – 18 Mar)	Oligopolistic and Monopolistic Competition	12	
Week 12 (21 – 25 Mar)	Oligopolistic and Monopolistic Competition	13	**Midterm #2 (Thursday Mar 24th)**
Week 13 (28 – 1 Apr)	Game Theory	13	**Assignment 3 Due (Friday Apr 1st)**
Week 14 (4 Apr)	Final Exam Period Begins		

Grading

Three assignments:	6% each (total 18%).
Two midterms:	16%.each (total 32%)
Final (cumulative):	50%.
Total:	100%

Your percentage grade translates to a UVic letter grade as follows:

A+ 90-100	**B+** 75-79	**C+** 60-64	**F** 0-49
A 85-89	**B** 70-74	**C** 55-59	
A- 80-84	**B-** 65-69	**D** 50-54	

No E grade is assigned.

Miscellaneous

Course website: Website and other course material will be updated throughout the course. Make sure you check the main course website frequently for announcements and potential changes made to the outline and course material.

Grading: Students that have questions or concerns regarding their grade should first direct these to their lab TA. If the lab TA cannot resolve the issue he/she will direct you to the instructor. All questions should be dealt with **no later than 1 week after the grade was returned**. After one week your grade is no longer subject to change.
Missing a test: In case an unforeseen event prevents you to write any test the rules are:

- To contact me **no later than the time the test ends**.
- To provide me with the relevant documentation, e.g. a doctor's certificate in case of illness.
- (Finally) To response to my emails **within 24 hours**

**** Note that, there will be no special accommodation if travel plans conflict with the final examination. Please be advised not to make travel plans until after the examination timetable has been finalized by record services.*

Setting up an Appointment: When making an appointment by email! I would like you to put "Econ203" in the header of your email and indicate a few (3 or more) time slots that work for you.

University of Victoria (UVic) Policy:

- *UVic Policy on Inclusivity and Diversity:* The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members. (UVic Calendar, p. 10).

- *UVic policy on Academic Integrity:* Students are expected to observe the same standards of scholarly integrity as their academic and professional counterparts. Students who are found to have engaged in unethical academic behavior, including the practices described on page 32-33 of the calendar, are subject to penalty by the University.

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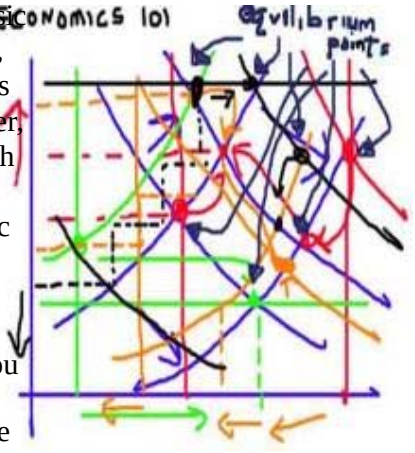
- Course Material
- Assignments
- Midterms
- Final

ECON 203: INTERMEDIATE MICROECONOMICS I

SPRING 2011

Home

Welcome to ECON 203—Intermediate Microeconomics I. This intermediate microeconomics course is designed to reinforce and expand your understanding of the basic microeconomic theory. In the beginning of the course, we will examine the two fundamental microeconomics topics: the consumer theory and producer theory. Later, we will shift our focus toward market competition with the introduction of monopoly, oligopolistic and monopolistic competition. An introduction of the basic game theory will conclude our course.



As you will soon notice, much of the material introduced in Econ 103 will be revisited. However, you will also notice that Econ 203 emphasizes on the *technique* besides the *results*. Our goal is to master the basic tools used by many economists, and to be able to apply these in a variety of contexts to set up and solve economic problems.

Contact Information

Instructor: Dan Vo
Office: BEC 314
Email: danvo@uvic.ca
Office Hour: By Appointment

TA:

ECON 203 – SPRING 2011
Intermediate Microeconomics.
Midterm 1
Wednesday Feb 16th, 2011 – 50 Minutes.

This midterm consists of two parts. Part 1 contains 8 multiple choice questions that is worth 1 mark each. Part 2 has two short-answer questions that are worth 21 marks each. In total you can earn 50 marks. Fill out your name, student number and lab section before you start. Good luck!

Name:…….

Student Number:……

Lab Section: B0……

Section 1: Multiple Choice Questions

1. Suppose that the supply curve for a good is vertical. In this case we would expect
A) a tax placed on the seller to be borne entirely by the seller.
B) a tax placed on the buyer to be borne entirely by the seller.
C) a tax placed on the buyer to be borne entirely by the buyer.
D) A and B.
E) A and C

2. The marginal rate of substitution between two goods is
A) the absolute value of the slope of the indifference curve.
B) the tradeoff between the two goods under consideration at any particular point.
C) the total utility derived at any point.
D) all of the above.
E) A and B.

3. In the standard case, in consumer equilibrium, which of the following is true?
A) The marginal rate of substitution equals the absolute value of the slope of the budget constraint.
B) The indifference curve is tangent to the budget constraint.
C) The consumer is maximizing utility given the budget constraint.
D) All of the above are true.

4. The cross-price elasticity of demand for perfect complements is
A) positive.
B) zero.
C) negative.
D) infinite.

5. Which of the following production functions does **not** display constant returns to scale?
A) $Q = K^{0.75}L^{0.25}$
B) $Q = 0.75K + 0.25L$
C) $Q = K^{0.75} + L^{0.25}$
D) $Q = 3K + L$
E) $Q = \min [0.75K, 0.25L]$

6. On a chapter quiz for this course you can study for up to four hours. If you don't study at all you will get a 70. One hour would give you an 80, the second hour increases your score to 89, the third to 92. If you studied the fourth hour your score would be 87. In which hour does "diminishing returns" set in?
A) The first, because the score is the lowest of the studying options.
B) The second, because your gain is less than that from the previous hour.
C) The third, because your score peaks there.
D) The fourth because you have a drop in your score from studying this hour.

7. The vertical distance between the average total cost and the average variable cost curves at any level of output will always be
A) variable cost.
B) average fixed cost.
C) fixed cost less variable cost.
D) total cost less fixed cost.

8. For a profit-maximizing firm facing fixed input prices, efficient production occurs at
A) the highest isoquant Q for a given isocost line C.
B) the lowest isoquant Q for a given isocost line C.
C) the lowest isocost line C for a given isoquant Q.
D) A or C.
E) B or C.
Ans: D

Part 2: Choose 2 questions (only the first 2 choices will be graded) of the three questions provided below. Each is worth 20 marks.

Question 1 (21 marks):

Consider a market with 20 individuals, each has a demand function for good X as: $P=26 – 20Q_i$. The market supply for good X is given by $P = 2 + 3Q$.

a) Prove that the aggregate market demand is $P = 26 – Q$. (5 marks)
b) Show that the market equilibrium quantity and price are 6 and 20 respectively? What is the quantity demanded for each individual? (4 marks)
c) What is the price elasticity of demand at the market equilibrium? (3 marks)

d) Compute the market equilibrium price and quantity associated with a tax of $4 per unit imposed on the buyers. . What is the price that the consumers actually pay? (4 marks)
e) Compute the loss in consumer surplus and producer surplus *associated with this tax*. Is the sum of the loss in consumer surplus and producer surplus equal to the deadweight loss? (-Hint: A calculation of the deadweight loss is not required.) (5 marks)

Question 2 (21 marks)

Felicia derives utility from goods X and Y, according to the following utility function: $U = X^2Y^4$.

Her budget is $120 per period, the price of X is P_X = $5/kilogram, and the optimal quantity of Y she purchases is 20 bushels.

a) With X on the horizontal axis and Y on the vertical axis, what is the formula for her marginal rate of substitution? (5 marks)
b) Give the quantity of X she purchases, the price of Y (= P_Y), and her *total expenditure on each good*. (5 marks)
c) If P_X becomes $10/kilogram with P_Y unchanged, give the quantities of X and Y purchased and the total expenditure on each. (5 marks)
d) Identify (on a diagram) the substitution effect and income effect associated with the increase in the price of good X as assumed in part c. Based on your answer, what can you conclude about the nature of this good X (normal good or inferior good?) (6 marks)

Question 3 (21 marks)

Suppose we have the following production function

$$Q(K,L) = 4K^{1/2}L^{1/2}$$

a) Show that, when *w* is the labour wage and *r* is the capital rent, the optimal ratio between capital and labour is $K = \frac{w}{r}L$ (4 marks)

b) Prove that the given production function exhibits diminishing marginal return of labour and also constant return to scale (5 marks).

c) Suppose capital is fixed at $\overline{K} = 4$ in the short run. Derive (if exists) the short run total cost function, short run average total cost function, short run marginal cost function, short run variable cost, short run fixed cost function *as a function of Q*. (6 marks)

d) *Use a diagram to prove* that the short run total cost is no less than the long run total cost. (6 marks)

ECON 203 – SPRING 2011
Intermediate Microeconomics.
Midterm 1
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Section 1: Multiple Choice Questions

1. Suppose that the supply curve for a good is vertical. In this case we would expect

A) a tax placed on the seller to be borne entirely by the seller.

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C) a tax placed on the buyer to be borne entirely by the buyer.

D) A and B.

E) A and C

Ans: D

2. The marginal rate of substitution between two goods is

A) the absolute value of the slope of the indifference curve.

B) the tradeoff between the two goods under consideration at any particular point.

C) the total utility derived at any point.

D) all of the above.

E) A and B.

Ans: E

3. In the standard case, in consumer equilibrium, which of the following is true?

A) The marginal rate of substitution equals the absolute value of the slope of the budget constraint.

B) The indifference curve is tangent to the budget constraint.

C) The consumer is maximizing utility given the budget constraint.

D) All of the above are true.

Ans: D

4. The cross-price elasticity of demand for perfect complements is

A) positive.

B) zero.

C) negative.
D) infinite.
Ans: C

5. Which of the following production functions does **not** display constant returns to scale?
A) $Q = K^{0.75}L^{0.25}$
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C) $Q = K^{0.75} + L^{0.25}$
D) $Q = 3K + L$
E) $Q = \min [0.75K, 0.25L]$
Ans: C

6. On a chapter quiz for this course you can study for up to four hours. If you don't study at all you will get a 70. One hour would give you an 80, the second hour increases your score to 89, the third to 92. If you studied the fourth hour your score would be 87. In which hour does "diminishing returns" set in?
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B) The second, because your gain is less than that from the previous hour.
C) The third, because your score peaks there.
D) The fourth because you have a drop in your score from studying this hour.
Ans: B

7. The vertical distance between the average total cost and the average variable cost curves at any level of output will always be
A) variable cost.
B) average fixed cost.
C) fixed cost less variable cost.
D) total cost less fixed cost.
Ans: B

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Question 1 (21 marks):

Consider a market with 20 individuals, each has a demand function for good X as: $P=26 - 20Q_i$. The market supply for good X is given by $P = 2 + 3Q$.

a) Prove that the aggregate market demand is P = 26 – Q. (5 marks)

➔ Individual demand: $Q_i = \frac{26}{20} - \frac{1}{20}P$

There are 20 individuals ➔ $20Q_i = Q_{agg} = 20\frac{26}{20} - 20\frac{1}{20}P = 26 - P$

Or P = 26 – Q

b) Show that the market equilibrium quantity and price are 6 and 20 respectively? What is the quantity demanded for each individual? (4 marks)

➔ Demand = Supply => 26 – Q=2 + 3Q => Q* = 6 and P* = $20.

➔ Each individual will purchase 6/20 unit.

c) What is the price elasticity of demand at the market equilibrium? According to your answer, if the supplier wants to increase his revenue, how should he change his price? (3 marks)

$$\eta = \left|\frac{\partial Q}{\partial P}\right|\frac{P}{Q} = 1*\frac{20}{6} = 3.33$$

Since elasticity is greater than 1, firm operates on the elastic part of the demand function. Thus, in order to increase revenue, this firm should reduce price.

d) Compute the market equilibrium price and quantity associated with a tax of $4 per unit imposed on the buyers. What is the price that the consumers actually pay? (4 marks)

➔ New aggregate demand curve: P = 26 - 4 – Q
New equilibrium: 22 – Q = 2+3Q => Q** = 5 and P** = $17.
The consumer actually pays $17 +$4 = $21.

e) Compute the loss in consumer surplus and producer surplus *associated with this tax*. Is the sum of the loss in consumer surplus and producer surplus equal to the deadweight loss? (-Hint: A calculation of the deadweight loss is not required.) (5 marks)

➔ Initial CS = ((26-20)*6)/2= 18; Initial PS = ((20-2)*6)/2=54
After tax CS = ((26-21)*5)/2 = 12.5; After tax PS = ((17-2)*5)/2 = 37.5
Loss in CS = 18 – 12.5 = 5.5; Loss in PS = 54 – 37.5 = 16.5

The total loss in CS and PS is not equal to the DWL as part of the loss results in a transfer to the government revenue as tax.

Question 2 (21 marks)

Felicia derives utility from goods X and Y, according to the following utility function: $U = XY^2$.

Her budget is $120 per period, the price of X is P_X = $5/kilogram, and the optimal quantity of Y she purchases is 20 bushels.

a) With X on the horizontal axis and Y on the vertical axis, derive Felicia's marginal rate of substitution? (5 marks)

➔ $MRS = \frac{MU_X}{MU_Y}$ with $MU_X=Y^2$ and $MU_Y=2XY$ => MRS = Y/2X

b) Give the quantity of X she purchases, the price of Y (= P_Y), and her *total expenditure on each good*. (5 marks)

➔ In equilibrium $\frac{Y^*}{2X^*} = \frac{P_X}{P_Y} => 2X^* = \frac{20P_Y}{5} = 4P_Y => X^* = 2P_Y$

Also $5X^* + 20P_Y = 120$

So: X^* =8 and P_Y=4

c) If P_X becomes \$10/kilogram with P_Y unchanged, give the quantities of X and Y purchased and the total expenditure on each. (5 marks)

➔ $\frac{Y^*}{2X^*} = \frac{P_X}{P_Y} => X^* = \frac{1}{5}Y^*$

Also $10X^* + 4Y^* = 120$

So: X^* = 4 and Y^* = 20

d) Identify (on a diagram) the substitution effect and income effect associated with the increase in the price of good X as assumed in part c. Based on your answer, what can you conclude about the nature of this good X (normal good or inferior good?) (6 marks)

➔ See class note or assignment 1 answer key. Key point is if you choose the good to be inferior good, then the 2 effects must be in opposite direction. If it is normal good then the 2 effects must be in the same direction.

Question 3 (21 marks)

Suppose we have the following production function

$Q(K,L) = 4K^{1/2}L^{1/2}$

a) Show that, when *w* is the labour wage and *r* is the capital rent, the optimal ratio between capital and labour is $K = \frac{w}{r}L$ (4 marks)

➔ In equilibrium, the optimal bundle requires $MRTS = \frac{MP_L}{MP_K} = \frac{w}{r}$

With $MP_L = 2\frac{K^{\frac{1}{2}}}{L^{\frac{1}{2}}}; MP_K = 2\frac{L^{\frac{1}{2}}}{K^{\frac{1}{2}}} => MRTS = \frac{K}{L}$

⇨ The optimal bundle requires K = wL/r

b) Prove that the given production function exhibits diminishing marginal return of labour and also constant return to scale (5 marks).

➔ Take the first and second derivative of the quantity with respect to labour to prove that the function exhibits diminishing marginal return.

To prove that this function exhibits constant return to scale, you should show that:

$Q_1 (K_1, L_1)=2\ Q_0 (K_0, L_0)$ where $K_1=2\ K_0$ and $L_1 = 2L_0$.

c) Suppose capital is fixed at $\overline{K} = 4$ in the short run. Derive (if exists) the short run total cost function, short run average total cost function, short run marginal cost function, short run variable cost, short run fixed cost function *as a function of Q*. (6 marks)

➔ When K is fixed at 4 in the short run, the short run production function becomes:

$Q = 8L^{1/2}$ or $L = Q^2/64$

$SRTC(Q) = rK + wL = 4r + wQ^2/64$

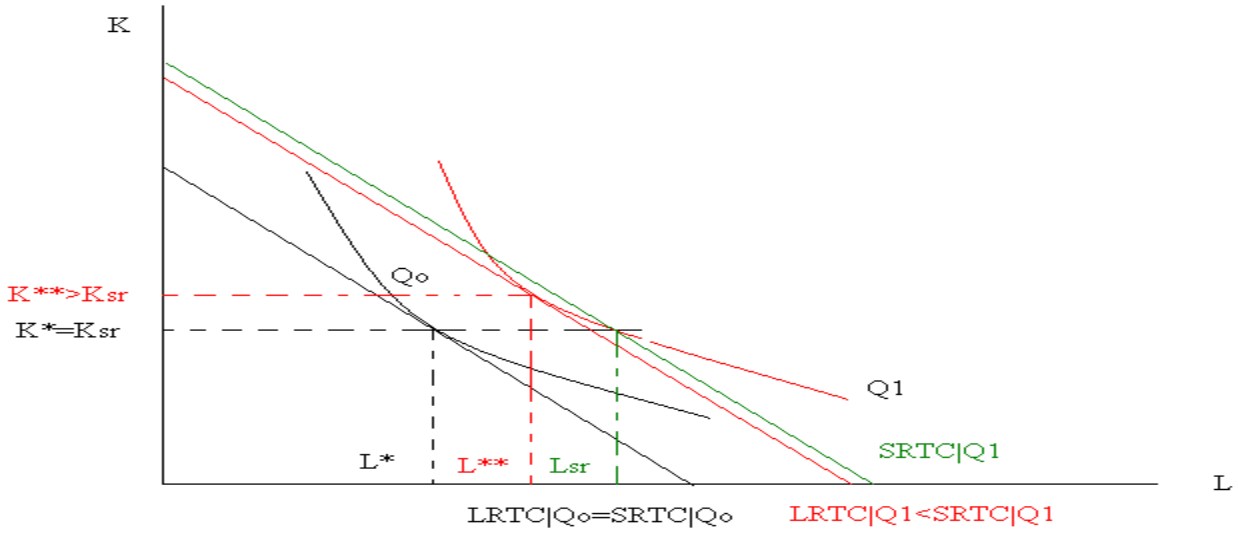
$SRATC(Q)=(4r + w\ Q^2/64)/Q$

$SRMC(Q)=wQ/32$

$SRVC(Q) = wQ^2/64$

$SRFC = 4r$

d) *Use a diagram to prove* that it is cheaper (or equally expensive at most) to produce a level of output in the long run than in the short run. (6 marks)



13ECON 203 – FALL 2009
Intermediate Microeconomics.
Midterm 2
Friday Nov 6th, 2009 – 50 Minutes.

This Midterm consists of two parts. Part 1 contains two short-answer questions that are worth 5 marks each. Part 2 has two long-answer questions that are worth 20 marks each. In total you can earn 50 marks, i.e. a minute per mark. Fill out your name and student number before you start. Good luck!

Name:…….

Student Number:……

PART 1: SHORT-ANSWER QUESTIONS (10 marks)

The short-answer questions below are worth 5 marks each**.**

Question 1-1 (5 marks).

For each production function below, *derive* whether the production technology is constant, increasing, or decreasing returns to scale (or neither). Also *derive* whether they exhibit diminishing rate of return in labor.

(a) $Y(K, L) = \sqrt{KL}$

(b) $Y(K, L) = 25L^{3/4} + \sqrt{KL}$

Question 1-2 (5 marks).

(1) *State* two (out of four) necessary conditions that define the existence of a perfectly competitive market and (2) *Explain* what is meant by economic profit, accounting profit and allocative efficiency of a short-run competitive equilibrium.

PART 2: LONG-ANSWER QUESTIONS (40 marks)
There are two long-answer questions. Please answer them in your booklet.

Question 2-1 (20 marks).

Consider a firm with production function $Q(K,L) = 4K^{1/2}L^{1/2}$ where K is capital and L *is* labor. Let the price of capital be r = \$4 and the price of labour be w = \$1. The current budget for this firm is \$320.

(a) Show that the optimal ratio of capital to labor is 1/4. (5 marks)
(b) How much of each input will be used in the production process if the firm wants to produce 160 units of output, i.e. Y =160? What is the total cost associated with that level of output? (5 marks)
(c) What is the optimal level of output this firm can produce with its current budget? Based on your result in (b) and (c), does this firm's production function exhibit increasing/decreasing or constant return to scale? (5 marks)
(d) Derive this firm's total cost, marginal cost and average cost functions as a function of Q. (5 marks)

Question 2-2 (20 marks)

There are 200 firms sharing a perfectly competitive market for potato chips. Each firm has an identical total cost function of $TC_i = Q_i*(Q_i+3)$. Demand for potato chips is given by Q =150 - 25P, where P represents the price of a bag of chips and Q is bag of chips.

(a) Derive the market aggregate supply function for potato chips. And draw the market demand and supply curve in one graph with price on the vertical axis and quantity on the horizontal axis. (5 marks)
(b) Find the equilibrium price and quantity in the market for potato chips. How many bags of chips each firm will produce? What is the economic profit, if any, each firm receives (7 marks).
(c) Compute the consumer and producer surplus for the whole market and show what these are in the above graph). (3 marks)
(d) Predict what will happen in the long run in the market for potato chips. Clearly explain what assumptions your prediction relies upon. (5 marks)

13ECON 203 – FALL 2009
Intermediate Microeconomics.
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Student Number:……

PART 1: SHORT-ANSWER QUESTIONS (10 marks)

The short-answer questions below are worth 5 marks each**.**

Question 1-1 (5 marks).

For each production function below, *derive* whether the production technology is constant, increasing, or decreasing returns to scale (or neither). Also *derive* whether they exhibit diminishing rate of return in labor.

(a) $Y(K, L) = \sqrt{KL}$

→ Constant return to scale and diminishing return to scale of labor.

(b) $Y(K, L) = 25L^{3/4} + \sqrt{KL}$

→ When double all inputs you will get this expression: $2^{3/4}(25L^{3/4} + 2^{1/4}\sqrt{KL})$ →not easy to see what type of return to scale this function is. Easier way would be just to insert (K,L) = (1,1) then (2,2) and compute the output equal 26 and 44 respectively. So this is decreasing return to scale.

Question 1-2 (5 marks).

(1) *State* two (out of four) necessary conditions that define the existence of a perfectly competitive market and (2) *Explain* what is meant by economic profit, accounting profit and allocative efficiency of a short-run competitive equilibrium.

→ Conditions page 392 – 393.
Profit page 388.
Efficiency page 402.

PART 2: LONG-ANSWER QUESTIONS (40 marks)
There are two long-answer questions. Please answer them in your booklet.

Question 2-1 (20 marks).

Consider a firm with production function $Q(K,L) = 4K^{1/2}L^{1/2}$ where K is capital and L *is* labor. Let the price of capital be r = \$4 and the price of labour be w = \$1. The current budget for this firm is \$320.

(a) Show that the optimal ratio of capital to labor is 1/4. (5 marks)
→MPL = $2K^{1/2}L^{-1/2}$ *and* MPK = $2L^{1/2}K^{-1/2}$
So MPL/MPK = w/r →K/L = ¼

(b) How much of each input will be used in the production process if the firm wants to produce 160 units of output, i.e. Y =160? What is the total cost associated with that level of output? (5 marks)
➔ K = 20 and L = 80. TC = 160.

(c) What is the optimal level of output this firm can produce with its current budget? Based on your result in (b) and (c), does this firm's production function exhibit increasing/decreasing or constant return to scale? (5 marks)
➔ At current budget TC = 320 → K = 40 and L = 160. Total output is 320. The production function exhibits constant return to scale because (1) alpha + beta = 1 or (2) double inputs, double output as shown.

(d) Derive this firm's total cost, marginal cost and average cost functions as a function of Q. (5 marks)
➔ TC = Q, MC = 1 = AC.

Question 2-2 (20 marks)

There are 200 firms sharing a perfectly competitive market for potato chips. Each firm has an identical total cost function of $TC_i = Q_i*(Q_i+3)$. Demand for potato chips is given by Q =150 - 25P, where P represents the price of a bag of chips and Q is bag of chips.

(a) Derive the market aggregate supply function for potato chips. And draw the market demand and supply curve in one graph with price on the vertical axis and quantity on the horizontal axis. (5 marks)

→The entire MC curve/function = Supply curve/function because MC curve is always above AC curve.

MC = 2Qi + 3 = P or Qi = -3/2 + 1/2P

Q_{Agg} = 200*Qi = -300 + 100P or P = 3 + Q_{Agg} /100.

(b) Find the equilibrium price and quantity in the market for potato chips. How many bags of chips each firm will produce? What is the economic profit, if any, each firm receives (7 marks).

→In equilibrium, S = D → P = 3.6 and Q_{Agg} = 60. Qi = 60/200 = 3/10.

Economic profir = TR(Qi) - TC(Qi) = 3/10*3.6 – 3/10(3/10 + 3) = 0.09

(c) Compute the consumer and producer surplus for the whole market and show what these are in the above graph). (3 marks)

➔ PS = (3.6-3)*60/2 = 18

➔ CS = (6 – 3.6)*60/2 = 72

(d) Predict what will happen in the long run in the market for potato chips. Clearly explain what assumptions your prediction relies upon. (5 marks)

➔ Since each firm currently makes economic profit, and under the competitive market with FREE ENTRY, more firms will enter the market that shift the aggregate supply curve to the right. As the result, price will go down and each firm will earn less profit. The long run equilibrium is stable when all the economic profit is exhausted.

UNIVERSITY OF VICTORIA
FINAL EXAM
April 2010

Course Name & No.:	ECON 203 – INTERMEDIATE ECONOMICS I
Sections(s):	A01
CRN:	24738
Instructor:	DAN VO
Duration:	3 HOURS

NAME: _____
STUDENT NUMBER: V00_____

This exam has a total of **5** pages including this cover page.

Students must count the number of pages and report any discrepancy immediately to the Invigilator.

This exam is to be answered:

__ On the paper

_X_ In Booklets provide

__ NCS Answer Sheets

Marking Scheme: N/A

Materials Allowed: N/A

ECON 203 – SPRING 2010 - 24738
Intermediate Microeconomics I.
Final
Monday April 19th, 2010 – 3 Hours.

This Final consists of two parts. Part 1 contains four short-answer questions. Part 2 has three long-answer questions. In total you can earn 120 marks. Fill out your name and student number before you start. Good luck!

PART 1: SHORT-ANSWER QUESTIONS (24 marks)

Question 1-1 (6 marks). Use the normal form representation of the following simultaneous game with two players to answer the following questions.

Payoff Matrix / Strategic form representation		**Player 2**	
		Strategy C	**Strategy D**
Player 1	**Strategy A**	($100, $425)	($350, $200)
	Strategy B	($300, $200)	($100, $300)

a. Identify the dominant strategy for each player, if any.
   → No dominant strategy

b. Identify the Nash equilibrium in this game, if any.
c. → No Nash equilibrium.

d. Why the set of strategy (A, D) is social optimal?
   ➔ Because the social surplus is 550 which is higher than any other set of strategies.

e. Suppose player 1 plays the social optimal strategy A, what is the minimum amount of money player 2 should be given so that he/she would also play the social optimal strategy?
   ➔ If play C, Player 2 gets 425…the social optimal strategy requires player 2 to play D, which he gets only 200. He must be given at least the difference, 225, if one wants to induce him into play strategy D.

Question 1-2 (6 marks). Name and explain three different sources of monopoly power.

➔ Economies of scale or diminishing average cost curve → natural monopoly. Firm lowers cost when produce more.

- ➔ Network economies: if one wants to have a service, one needs to use a firm's product. Rogers wireless for example. If you want to talk with your friends at low or no cost, who is also using Rogers, you need to use Rogers.
- ➔ Exclusive control over important input: restrict other firms to enter the production.
- ➔ Patents
- ➔ Government of other license or franchise.

Question 1-3 (6 marks).

An auto repair business has the following total cost function: $TC = 2Q^2 + 10$ where Q is the number of repairs. *Derive and plot* the following cost functions: *Average total cost, average variable cost and marginal cost.*

On your graph, identify the part of the marginal cost curve that is also the short run supply curve for this auto repair business.

- ➔ Average cost = 2Q + 10 Q → convex toward origin.
- ➔ Average variable cost = 2Q
- ➔ Marginal cost = 4Q

As MC curve always above the average variable cost curve, the short run supply curve is the entire MC curve.

Question 1-4 (6 marks).

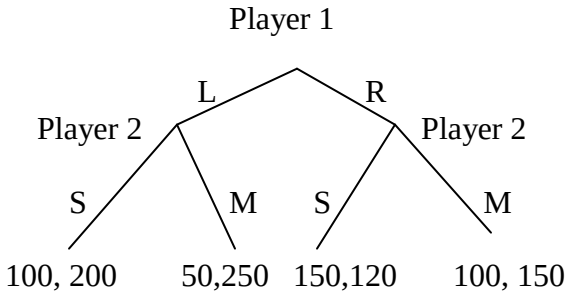
Consider the following case. There are two firms in the market producing a homogeneous product with the following demand function Q = 1000 – 100P. Firm A has $TC_A = 3Q_A$ and firm B has $TC_B = 3.5Q_B$. Suppose the two firms engage in a Bertrand competition. What is the market equilibrium price? What is the traded quantity at that price for firm A and for firm B?

- ➔ Equilibrium price will be just slightly less than 3.5 as $MC_A = 3$ and $MC_B = 3.5$. Let's take price equal to 3.49 then Q = 651 and all from firm A as it undercuts firm B price to capture the whole market.

PART 2: LONG-ANSWER QUESTIONS (96 marks)

Question 2-1 (32 marks)

Consider a the following game tree



(a) Identify the strategies available to the player 1 and player 2 for the above game. (6 marks)

➔ Player 1: {L, R}

➔ Player 2: {(S,S),(S,M),(M,S),(M,M)}

(b) Give normal form (or the payoff matrix) representation of the game above, and find all the Nash equilibria of this game. (12 marks)

Payoff Matrix / Normal form representation		**Player 2**			
		(S,S)	**(S,M)**	**(M,S)**	**(M,M)**
Player 1	**Strategy L**	(100, 200)	(100, 200)	(50, 250)	(50, 250)
	Strategy R	(150, 120)	(100, 150)	(150, 120)	(100, 150)

→ NE: {R,(S,M)}{R,(M,M)} with payoff of (100,150) and (100,150)

(c) Using the game tree provided above, find all the sub-game perfect Nash equilibria? (4 marks)

→ SPNE = {R,M} with the payoff of (100,150).

(d) What must player 2 do to ensure that he/she will get the payoff of 250? (6 marks)

→ player 1 wants to play R because he can then get 100. If he plays L, which is what player 2 wants him to do, he will get only 50. Player 2 will then need to give player 1 at least the difference or 50.

(e) Identify, and explain why it is the case, ONE *non-credible threat* among those Nash equilibria you found in part b. (4 marks)

→ Non-credible threat is the (M, M) strategy in which when player 1 plays L, player 2 will play S instead not of M as proposed in his/her strategy.

Question 2-2 (32 marks)

There are two firms in the market where the demand function is $Q_1 + Q_2 = 53 - P$. The marginal cost functions for firm 1 and firm 2 are $TC_1 = TC_2 = 5Q$. Suppose the two firms engage in a Cournot competition.

(a) Derive and draw the best response functions (reaction functions) for those two firms. (6 marks)

➔ MC1 = MC2 = 5. Each firm solves the same profit max. problem with FOC implies Q1 = 24 – Q2/2
In space Q1 and Q2, one can draw the two best response functions.

(b) Compute the Cournot equilibrium, i.e. compute the quantity produced by each firm and the resulting market price and profit for each firm. (6 marks)

➔ Q1 = Q2 = 16 and P = 53 – 32 = 21

➔ Profit for firm 1 and 2 are then = (21-5)*12 = 192

(c) Now suppose that firm 1 has an opportunity to invest in R&D that will reduce its marginal cost to $TC_1 = 3Q$; while its opponent, firm 2, has the original marginal cost function $TC_2 = 5Q$. How much would firm 1 be willing to invest in such R&D? (10 marks)

➔ The best response function will be different for firm 1 and firm 2. Indeed, firm 1's best response curve will shift outward and Q1 = 52/3 = 17.33 and Q2 = 15.33.
P = 53 – (17.33+15.33) = 20.34 and profit for firm 1 = (20.34 – 3)*17.33 = 300.5
That is firm 1 will increase its profit by 300.5 – 192 = 108.5 which will be the maximum amount that firm 1 will invest in R&D.

R&D appears to be too costly for firm 1 so that it looks into other alternative to increase its profit. One possibility is to engage in a collusive agreement with firm 2, the other is to purchase (take over) firm 2. The former will allow firm 1 to share half the monopoly profit and the latter will allow firm 1 to be a monopolist and keep all the monopoly profit.

(d) Compute firm 1's maximum willingness to pay to purchase firm 2? (Hint – compare the case where firm 1 is a monopolist and the case where it plays Cournot with firm 2). (6 marks)

➔ As a monopolist, firm 1 will sell only 24 units and charge the monopolist price = 53 – 24 = 29. The monopolist profit is then (29 – 5)*24 = 576.
Firm 1's max willingness to pay for firm 2 is equal to 576 – 192 = 384

(e) Suppose there are now N firms in the industry with the same cost function and face the same market demand. Derive a representative firm's best response function and show that as N becomes large, the market price approaches the price that would prevail under perfect competition, P = MC = 5. (4 marks)

➔ With N firms, every firm (due to the symmetry of this exercise) produces Q = 48/(N+1) and the aggregate market supply is 48N/(N+1) and price will be
P = 53 – 48N/(N+1). As N goes to infinity, N/(N+1) → 1 so P → 5 = MC which is the perfect competition market outcome, firm sells at marginal cost.

Question 2-3 (32 marks)

Orange Computer Company sells Orange u-pad in Canada and the US. Because of legal restriction, an Orange u-pad purchased in one market cannot be resell in another market (no arbitrage condition). The demands for Orange u-pad in the US and Canada are the following (all price is in US dollar):

$P_{US} = 2{,}500 - 5Q$
$P_{CAN} = 2{,}000 - 2Q$

Orange Computer Company faces a total cost function: $TC(Q) = 15Q$

(a) Compute the prices that the *profit maximizing monopolist* charges in Canada and in the US. What are the quantities purchased in each country? (12 marks)

$MR_{US} = 2500 - 10Q$
$MR_{CAN} = 2000 - 4Q$
MC = 15 is constant. So $MR_{US} = MR_{CAN} = MC = 15 \Rightarrow Q_{US} = 248.5$ and $Q_{CAN} = 496.25$ and $P_{US} = 1257.5$ and $P_{CAN} = 1007.5$

(b) Show that the price elasticity of demand in the two markets are all equal to 1. Relate the unit elasticity with the monopoly pricing – Hint: how elasticity relates to total expenditure and price (6 marks)

➔ $\eta_{US} = |1/\text{slope} * P_{US}/Q_{US}| \sim 1$ unit elastic
$\eta_{CAN} = |1/\text{slope} * P_{CAN}/Q_{CAN}| \sim 1$ unit elastic

Recall that, if elastic decrease price will increase total expenditure and if inelastic increase price will increase total expenditure. Max expenditure at unit elasticity. Also remember how the markup relates to the elasticity.

Let's focus now on just the Canadian market for the Orange u-pad.

(c) If the government wants to impose a price ceiling on the Orange u-pad, what is the level of price ceiling that yields that largest level of quantity traded? (6 marks)

➔ Largest quantity traded is where MC cuts demand curve because beyond that point, although there is still demand, supplier incurs a loss producing additional unit of output. This is also the perfect competitive outcome. So price ceiling should be at the MC = 15.

(d) Compute the amount of consumer surplus and the monopolist's profit in association with that price ceiling. (4 marks)

➔ CS = [(2000 – 15) * 992.5]/2 = 985,056.25 and since P = MC, monopolist earns 0 profit.

(e) In the anticipation of such price ceiling, suggest how a monopolist can earn profit while abiding the government's price ceiling restriction using the method of price discrimination (4 marks)

➔ Monopolist can adopt two part tariff where it charges P = 15 = MC which abides the price ceiling rule and also a fee fix equal to the amount of consumer surplus.

UNIVERSITY OF VICTORIA
FINAL EXAM
April 2010

Course Name & No.:	ECON 203 – INTERMEDIATE ECONOMICS I
Sections(s):	A01
CRN:	24738
Instructor:	DAN VO
Duration:	3 HOURS

NAME: _____
STUDENT NUMBER: V00_____

This exam has a total of **5** pages including this cover page.

Students must count the number of pages and report any discrepancy immediately to the Invigilator.

This exam is to be answered:

__ On the paper

_X_ In Booklets provide

__ NCS Answer Sheets

Marking Scheme: N/A

Materials Allowed: N/A

ECON 203 – SPRING 2010 - 24738
Intermediate Microeconomics I.
Final
Monday April 19th, 2010 – 3 Hours.

This Final consists of two parts. Part 1 contains four short-answer questions. Part 2 has three long-answer questions. In total you can earn 120 marks. Fill out your name and student number before you start. Good luck!

PART 1: SHORT-ANSWER QUESTIONS (24 marks)

Question 1-1 (6 marks). Use the normal form representation of a simultaneous game with two players shown below to answer the following questions.

Payoff Matrix / Strategic form representation		**Player 2**	
		Strategy C	**Strategy D**
Player 1	**Strategy A**	($100, $425)	($350, $200)
	Strategy B	($300, $200)	($100, $300)

a. Identify the dominant strategy for each player, if any.

b. Identify the Nash equilibrium in this game, if any.

c. Why the set of strategy (A, D) is social optimal?

d. Suppose player 1 plays the social optimal strategy A, what is the minimum amount of money player 2 should be given so that he/she will also play the social optimal strategy?

Question 1-2 (6 marks). Name and explain three different sources of monopoly power.

Question 1-3 (6 marks).

An auto repair business has the following total cost function: $TC = 2Q^2 + 10$ where Q is the number of repairs. *Derive and plot* the following cost functions: *Average total cost, average variable cost and marginal cost.*

On your graph, identify the part of the marginal cost curve that is also the short run supply curve for this auto repair business.

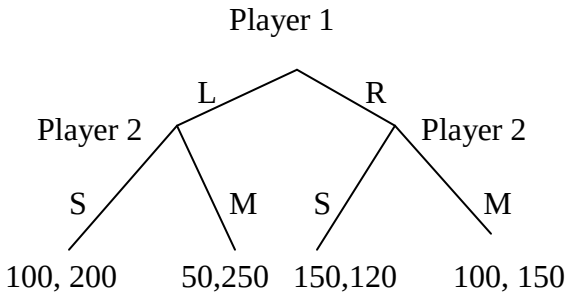
Question 1-4 (6 marks).

Consider the following case. There are two firms in the market producing a homogeneous product with the following demand function Q = 1000 – 100P. Firm A has $TC_A = 3Q_A$ and firm B has $TC_B = 3.5Q_B$. Suppose the two firms engage in a Bertrand competition. What is the market equilibrium price? What is the traded quantity at that price for firm A and for firm B?

PART 2: LONG-ANSWER QUESTIONS (96 marks)

Question 2-1 (32 marks)

Consider a the following game tree



(a) Identify the strategies available to the player 1 and player 2 for the above game. (6 marks)

(b) Give the normal form (or the payoff matrix) representation of the game above, and find all the Nash equilibria of this game. (12 marks)

(c) Using the game tree provided above, find all the sub-game perfect Nash equilibria? (6 marks)

(d) What does player 2 need to do to ensure that he/she will get the payoff of 250? (4 marks)

(e) Identify, and explain why it is the case, ONE *non-credible threat* among those Nash equilibria you found in part b. (4 marks)

Question 2-2 (32 marks)

There are two firms in the market where the demand function is $Q_1 + Q_2 = 53 – P$. The total cost functions for firm 1 and firm 2 are $TC_1 = TC_2 = 5Q$. Suppose the two firms engage in a Cournot competition.

(a) Derive and draw the best response functions (reaction functions) for those two firms. (6 marks)

(b) Compute the Cournot equilibrium, i.e. compute the quantity produced by each firm, the resulting market price and profits for each firm. (6 marks)

(c) Now suppose that firm 1 has an opportunity to invest in R&D that will reduce its marginal cost to $TC_1 = 3Q$; while its opponent, firm 2, has the original marginal cost function $TC_2 = 5Q$. How much would firm 1 be willing to invest in such R&D? (10 marks)

R&D appears to be too costly for firm 1 so that it looks into other alternative to increase its profit. One possibility is to engage in a collusive agreement with firm 2, the other is to purchase (take over) firm 2. The former will allow firm 1 to share half the monopoly profit and the latter will allow firm 1 to be a monopolist and keep all the monopoly profit.

(d) Compute firm 1's maximum willingness to pay to purchase firm 2? (Hint – compare the case where firm 1 is a monopolist and the case where it plays Cournot with firm 2). (6 marks)

(e) Suppose there are now N firms in the industry with the same cost function and face the same market demand. Derive a representative firm's best response function and show that as N becomes large, the market price approaches the price that would prevail under perfect competition, P = MC = 5. (4 marks)

Question 2-3 (32 marks)

Orange Computer Company sells Orange u-pad in Canada and the US. Because of legal restriction, an Orange u-pad purchased in one market cannot be resell in another market (no arbitrage condition). The demands for Orange u-pad in the US and Canada are the following (all price is in US dollar):

$P_{US} = 2{,}500 - 5Q$
$P_{CAN} = 2{,}000 - 2Q$

Orange Computer Company faces a total cost function: $TC(Q) = 15Q$

(a) Compute the prices that the *profit maximizing monopolist* charges in Canada and in the US. What are the quantities purchased in each country? (12 marks)

(b) Show that the price elasticity of demands in the two markets are all equal to 1. Relate the unit elasticity with the monopoly pricing – Hint: how elasticity relates to total expenditure and price (6 marks)

Let's focus now on just the Canadian market for the Orange u-pad to answer the below questions.

(c) If the government wants to impose a price ceiling on the Orange u-pad, what is the level of price ceiling that yields that largest level of quantity traded? (6 marks)

(d) Compute the amount of consumer surplus and the monopolist's profit in association with that price ceiling. (4 marks)

(e) In the anticipation of such price ceiling, suggest how a monopolist can earn profit while abiding the government's price ceiling restriction using the method of price discrimination (4 marks)

---- END ----

University of Victoria

University of Victoria
Course Experience Survey
Survey Summary Results: Fall 2009

Dept/Faculty: **Economics, Faculty of Social Sciences**

I Instructor's Teaching - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
1. The instructor was prepared for course sessions.	1%	2%	8%	32%	58%	1378	4.44	0.77	5.0
2. The instructor's explanations of concepts were clear.	1%	4%	17%	38%	39%	1378	4.10	0.92	4.0
3. The instructor motivated you to learn in this course.	2%	7%	26%	36%	29%	1376	3.81	1.01	4.0
4. Instructor was available to answer questions or provide assistance.	2%	3%	16%	36%	43%	1362	4.14	0.93	4.0
5. Instr. ensured that assign./tests were returned within reasonable time.	2%	5%	15%	34%	45%	1377	4.17	0.95	4.0
6. Instr. was helpful in providing feedback to improve learning in course.	3%	8%	23%	36%	31%	1369	3.83	1.05	4.0
7. The instructor demonstrated respect for students and their ideas.	0%	2%	9%	32%	56%	1371	4.42	0.77	5.0
8. Overall, the instructor was effective in this course.	1%	4%	14%	38%	43%	1372	4.18	0.90	4.0

II Course Design - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
9. The course structure, goals and requirements were clear.	1%	5%	17%	42%	36%	1378	4.08	0.88	4.0
10. The materials provided for learning the course content were clear.	2%	6%	17%	39%	36%	1369	4.02	0.96	4.0
11. The assigned work helped your understanding of the course content.	2%	6%	21%	36%	34%	1346	3.94	1.01	4.0
12. Course provided opportunities to engage with the course material.	5%	12%	28%	31%	24%	1363	3.57	1.12	4.0
13. The methods of assessment used to evaluate your learning were fair.	2%	6%	17%	41%	34%	1373	4.00	0.94	4.0
14. The course provided relevant skills and information.	1%	4%	20%	40%	34%	1371	4.02	0.91	4.0
15. Overall, the course offered an effective learning experience.	1%	6%	19%	41%	34%	1377	4.01	0.93	4.0

III Statements About The Students:

16. My primary reason for taking the course:

	Interest	Program Requirement	Reputation of Instructor	Reputation of Course	Timetable Fit
Number:	376	842	84	18	51

17. The approximate number of classes or labs that I did not attend:

	< 3	3 - 10	11 - 20	>20	n/a
Number:	864	385	28	9	86

18. Relative to other courses I have taken at UVic, the workload in this course was:

	Extremely Heavy	Somewhat Heavy	Average	Somewhat Light	Extremely Light
Number:	46	274	801	191	54

19. The approximate number of hours per week I spent studying for this course outside of class time:

	< 1	1 <= 2	2 <= 5	5 <= 8	8 <= 10	> 10
Number:	138	459	545	166	40	24

20. As a result of my experience in this course, my interest in the material:

	Decreased	Stayed the same	Increased
Number:	156	663	551

IV Additional Statements:

Statement	% Response to Scale Ratings					Total # of
	1	2	3	4	5	Resp.
21.	99%	1%	0%	0%	0%	1326
22.	99%	1%	0%	0%	0%	1329
23.						0
24.						0
25.						0

Learning and Teaching Centre
December 18, 2009

University of Victoria

University of Victoria
Course Experience Survey
Survey Summary Results: Spring 2010

Course: ECON 203 **Section:** A01 **Instructor:** DAN VO
Dept/Faculty: Economics, Faculty of Social Sciences **Enrolment:** 79 **Rate of Response:** 60.8%

I Instructor's Teaching - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
1. The instructor was prepared for course sessions.	0%	6%	15%	44%	35%	48	4.08	0.87	4.0
2. The instructor's explanations of concepts were clear.	2%	17%	29%	35%	17%	48	3.48	1.03	4.0
3. The instructor motivated you to learn in this course.	2%	8%	40%	31%	19%	48	3.56	0.97	3.5
4. Instructor was available to answer questions or provide assistance.	2%	2%	23%	42%	31%	48	3.98	0.91	4.0
5. Instr. ensured that assign./tests were returned within reasonable time.	0%	2%	25%	40%	33%	48	4.04	0.82	4.0
6. Instr. was helpful in providing feedback to improve learning in course.	0%	13%	27%	40%	21%	48	3.69	0.95	4.0
7. The instructor demonstrated respect for students and their ideas.	0%	2%	8%	44%	46%	48	4.33	0.72	4.0
8. Overall, the instructor was effective in this course.	4%	4%	27%	42%	23%	48	3.75	1.00	4.0

II Course Design - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
9. The course structure, goals and requirements were clear.	0%	4%	19%	60%	17%	48	3.90	0.72	4.0
10. The materials provided for learning the course content were clear.	0%	13%	23%	48%	17%	48	3.69	0.90	4.0
11. The assigned work helped your understanding of the course content.	0%	4%	10%	48%	38%	48	4.19	0.79	4.0
12. Course provided opportunities to engage with the course material.	6%	11%	45%	34%	4%	47	3.19	0.92	3.0
13. The methods of assessment used to evaluate your learning were fair.	2%	2%	27%	42%	27%	48	3.90	0.90	4.0
14. The course provided relevant skills and information.	0%	4%	21%	48%	27%	48	3.98	0.81	4.0
15. Overall, the course offered an effective learning experience.	0%	4%	21%	51%	23%	47	3.94	0.79	4.0

III Statements About The Students:

16. My primary reason for taking the course:

	Interest	Program Requirement	Reputation of Instructor	Reputation of Course	Timetable Fit
Number:	6	37	0	2	0

17. The approximate number of classes or labs that I did not attend:

	< 3	3 - 10	11 - 20	>20	n/a
Number:	27	15	1	0	4

18. Relative to other courses I have taken at UVic, the workload in this course was:

	Extremely Heavy	Somewhat Heavy	Average	Somewhat Light	Extremely Light
Number:	0	6	35	5	1

19. The approximate number of hours per week I spent studying for this course outside of class time:

	< 1	1 <= 2	2 <= 5	5 <= 8	8 <= 10	> 10
Number:	4	18	22	2	0	0

20. As a result of my experience in this course, my interest in the material:

	Decreased	Stayed the same	Increased
Number:	4	28	14

IV Additional Statements:

Statement	% Response to Scale Ratings					Total # of
	1	2	3	4	5	Resp.
21.	98%	2%	0%	0%	0%	42
22.	98%	2%	0%	0%	0%	44
23.						0
24.						0
25.						0

Learning and Teaching Centre
April 30, 2010

University of Victoria
Course Experience Survey
Survey Summary Results: Spring 2011

Course: ECON 203 **Section:** A01 **Instructor:** DAN VO

Dept/Faculty: Economics, Faculty of Social Sciences **Enrolment:** 98 **Rate of Response:** 60.2%

I Instructor's Teaching - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
1. The instructor was prepared for course sessions.	0%	0%	3%	36%	61%	59	4.58	0.56	5.0
2. The instructor's explanations of concepts were clear.	0%	0%	17%	34%	49%	59	4.32	0.75	4.0
3. The instructor motivated you to learn in this course.	2%	2%	12%	36%	49%	59	4.29	0.87	4.0
4. Instructor was available to answer questions or provide assistance.	0%	2%	12%	37%	49%	59	4.34	0.76	4.0
5. Instr. ensured that assign./tests were returned within reasonable time.	0%	5%	2%	34%	59%	59	4.47	0.77	5.0
6. Instr. was helpful in providing feedback to improve learning in course.	0%	3%	20%	27%	49%	59	4.22	0.89	4.0
7. The instructor demonstrated respect for students and their ideas.	0%	0%	7%	14%	80%	59	4.73	0.58	5.0
8. Overall, the instructor was effective in this course.	0%	0%	5%	36%	59%	59	4.54	0.60	5.0

II Course Design - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
9. The course structure, goals and requirements were clear.	0%	3%	8%	41%	47%	59	4.32	0.78	4.0
10. The materials provided for learning the course content were clear.	2%	2%	28%	32%	37%	57	4.00	0.94	4.0
11. The assigned work helped your understanding of the course content.	2%	7%	14%	29%	49%	59	4.17	1.02	4.0
12. Course provided opportunities to engage with the course material.	3%	10%	25%	36%	25%	59	3.69	1.07	4.0
13. The methods of assessment used to evaluate your learning were fair.	2%	3%	19%	37%	39%	59	4.08	0.93	4.0
14. The course provided relevant skills and information.	0%	2%	15%	41%	42%	59	4.24	0.77	4.0
15. Overall, the course offered an effective learning experience.	0%	5%	5%	44%	46%	59	4.31	0.79	4.0

III Statements About The Students:

16. My primary reason for taking the course:

	Interest	Program Requirement	Reputation of Instructor	Reputation of Course	Timetable Fit
Number:	2	56	0	1	0

17. The approximate number of classes or labs that I did not attend:

	< 3	3 - 10	11 - 20	>20	n/a
Number:	29	20	0	0	10

18. Relative to other courses I have taken at UVic, the workload in this course was:

	Extremely Heavy	Somewhat Heavy	Average	Somewhat Light	Extremely Light
Number:	3	18	35	3	0

19. The approximate number of hours per week I spent studying for this course outside of class time:

	< 1	1 <= 2	2 <= 5	5 <= 8	8 <= 10	> 10
Number:	3	15	32	8	1	0

20. As a result of my experience in this course, my interest in the material:

	Decreased	Stayed the same	Increased
Number:	2	34	23

IV Additional Statements:

Statement	% Response to Scale Ratings					Total # of
	1	2	3	4	5	Resp.
21.	100%	0%	0%	0%	0%	53
22.	100%	0%	0%	0%	0%	53
23.						0
24.						0
25.						0

Learning and Teaching Centre
April 22, 2011

University of Victoria

University of Victoria
Course Experience Survey
Survey Summary Results: Fall 2011

Course: ECON 203 **Section:** A01 **Instructor:** DAN VO

Dept/Faculty: Economics, Faculty of Social Sciences **Enrolment:** 67 **Rate of Response:** 52.2%

I Instructor's Teaching - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
1. The instructor was prepared for course sessions.	0%	3%	9%	49%	40%	35	4.26	0.74	4.0
2. The instructor's explanations of concepts were clear.	0%	3%	29%	34%	34%	35	4.00	0.87	4.0
3. The instructor motivated you to learn in this course.	0%	3%	31%	34%	31%	35	3.94	0.87	4.0
4. Instructor was available to answer questions or provide assistance.	0%	6%	11%	43%	40%	35	4.17	0.86	4.0
5. Instr. ensured that assign./tests were returned within reasonable time.	0%	11%	14%	46%	29%	35	3.91	0.95	4.0
6. Instr. was helpful in providing feedback to improve learning in course.	0%	6%	18%	48%	27%	33	3.97	0.85	4.0
7. The instructor demonstrated respect for students and their ideas.	0%	0%	6%	35%	59%	34	4.53	0.61	5.0
8. Overall, the instructor was effective in this course.	0%	3%	18%	35%	44%	34	4.21	0.84	4.0

II Course Design - Students' Ratings on the Following Statements:

Statement	% Response to Scale Ratings					Total # of			
	1=Very Poor	2=Poor	3=Adequate	4=Good	5=Excellent	Resp.	Mean	SD	Median
9. The course structure, goals and requirements were clear.	0%	3%	14%	57%	26%	35	4.06	0.73	4.0
10. The materials provided for learning the course content were clear.	0%	15%	21%	44%	21%	34	3.71	0.97	4.0
11. The assigned work helped your understanding of the course content.	0%	9%	14%	49%	29%	35	3.97	0.89	4.0
12. Course provided opportunities to engage with the course material.	0%	23%	29%	40%	9%	35	3.34	0.94	3.0
13. The methods of assessment used to evaluate your learning were fair.	0%	3%	6%	69%	23%	35	4.11	0.63	4.0
14. The course provided relevant skills and information.	0%	6%	27%	33%	33%	33	3.94	0.93	4.0
15. Overall, the course offered an effective learning experience.	0%	3%	11%	63%	23%	35	4.06	0.68	4.0

III Statements About The Students:

16. My primary reason for taking the course:

	Interest	Program Requirement	Reputation of Instructor	Reputation of Course	Timetable Fit
Number:	2	32	0	0	1

17. The approximate number of classes or labs that I did not attend:

	< 3	3 - 10	11 - 20	>20	n/a
Number:	22	9	0	0	4

18. Relative to other courses I have taken at UVic, the workload in this course was:

	Extremely Heavy	Somewhat Heavy	Average	Somewhat Light	Extremely Light
Number:	1	6	24	4	0

19. The approximate number of hours per week I spent studying for this course outside of class time:

	< 1	1 <= 2	2 <= 5	5 <= 8	8 <= 10	> 10
Number:	2	12	13	6	0	2

20. As a result of my experience in this course, my interest in the material:

	Decreased	Stayed the same	Increased
Number:	2	19	14

IV Additional Statements:

Statement	% Response to Scale Ratings					Total # of
	1	2	3	4	5	Resp.
21.	100%	0%	0%	0%	0%	35
22.	94%	6%	0%	0%	0%	35
23.						0
24.						0
25.						0