UNIVERSITY OF TORONTO

Department of Economics (St. George)
ECO 404: Topics in Managerial Economics Fall 2018
Ajaz Hussain
5 – 8 pm, Wednesdays, UC 330

COURSE DESCRIPTION:

In this course, students will utilize economic and statistical methods to discuss, analyze, model, present, and write papers on the following managerial-economics cases:

- Valuing financial assets by mark to market vs. income approach;
- Potential synergies from generating hazardous waste;
- "Forward" and "backwards" approaches to making decisions under uncertainty;
- Managing price erosion at a company;
- Hedging against price volatility of a commodity for which there are no financial derivatives;
- Analyzing the (in)effectiveness of marketing campaigns;
- Valuing a Leveraged Buyout (LBO) with variable capital structure in the short run;
- Bidding strategies on a complex auction of a Copper-Zinc mine involving forecasting commodity prices via Brownian motion processes;
- Investment strategies in multi-stage R&D races.

LEARNING OUTCOMES (UNDER REVISION):

- By the end of this course, students will be able to analyze, identify, formulate, articulate, and present a structured solution to the salient issue(s) in real life business-economics cases.

- By the end of this course, students will be able to formulate appropriate econometric models to investigate particular business-economics hypotheses.

- By the end of this course, students will be able to build models involving Monte-Carlo simulation, Optimization, and advanced Econometric methods.

- By the end of this course, students will be able to work cooperatively in a small group environment.

- By the end of this course, students will be able to compose professional level presentations, quantitative models, and business reports.

PRE-REQUISITES:

All students *must* meet the pre-requisites listed at https://fas.calendar.utoronto.ca/course/ECO404H1: ECO200Y1(75%)/ ECO204Y1/ ECO206Y1; ECO220Y1/ ECO227Y1/ (STA220H1, STA255H1)/ (STA237H1, STA238H1)/ (STA257H1, STA261H1); ECO372H1/ ECO374H1/ ECO375H1; at least one FCE in ECO at the 300 level or higher.). Please note that the Economics Department will check prerequisites requirements manually and (ultimately) eject students who do not meet prerequisites (i.e. being able to register for this course on ACORN doesn't mean that you have satisfied all prerequisites).

INSTRUCTOR: "Ajaz" Hussain

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Office:	GE 212/213
Office Hours:	Tuesdays 6 – 7 pm (in GE 213), before class, or by appointment

REQUIRED COURSE MATERIAL:

ECO 404 HBS Case Pack:

Please visit https://hbsp.harvard.edu/import/571498 and register as a student, purchase and download the following cases, notes, and data supplements to your computer:

1. Milk and Money (with spreadsheet supplement)
2. Compass Maritime Services, LLC: Valuing Ships (with spreadsheet supplement; Ajaz's Note on Omitted Variable Bias)
3. Vereinigung Hamburger Schiffsmakler und Schiffsagenten e.V. (VHSS): Valuing Ships (with spreadsheet supplement)
4. Ocean Carriers (with spreadsheet supplement)
5. Cook Composites and Polymers Co.
6. Fueling Sales at EuroPet Data Spreadsheet (with spreadsheet supplement)
7. Gold Claim at Sturgeon Lake
8. Tupelo Medical: Managing Price Erosion (with spreadsheet supplement; Ajaz's Note on the Tupelo Model)
9. Valuation of AirThread Connections (accompanies "Note on Cash Flow Valuation Methods: Comparison of WACC, FTE, CCF and APV Approaches"; with spreadsheet supplement; Ajaz's Note on Valuing Airthread)
10. Bidding for Antamina (Real Options Monte Carlo simulation Excel model for Antamina Case and Ajaz's Note on Brownian Motion)
11. Race to Develop Human Insulin (accompanies R&D Race; Ajaz's Note on R&D Race; Ajaz's R&D Race Excel Model)

Excel 2010 (or later versions): running on PCs with Windows operating systems (not Apple machines even if it has the Windows OS)**.** Please install:

1. "Solver add-in"
2. "Data Analysis add-in"
3. "FRED Excel Add-in"
4. "Monte-Carlo Simulations Add-in"
5. Stat-tools (available for $50 at http://www.palisade.com/ (no need to get this if you have econometrics software like R, Matlab, Stata)
6. (Optional): Ajaz's Excel Lessons on YouTube

GRADING SCHEME:

Component (See Schedule and Grading Rubric Below)	Percentage of Course Grade
Presentation Case 1	10
Presentation Case 2	10
Presentation Case 3	10
Presentation Case 4	10
Presentation Case 5	10
Participation and Discussion Session + Memo 1	5
Participation and Discussion Session + Memo 2	5
Participation and Discussion Session + Memo 3	5
Participation and Discussion Session + Memo 4	5
Participation and Discussion Session + Memo 5	5
Solo Paper 1	5
Solo Paper 2	5
Solo Paper 3	5
Solo Paper 4	5
Solo Paper 5	5
Total	**100**

				COURSE PLAN					
Date	Participation (first ½ of class)	Participation (Second ½ of class)	1 page Memo per case	Present	Present	Present	Present	Solo Paper (4-5 pages max)	Comments
9/12/2018	Missed (will make up at end of semester)								
9/19/2018	Introduction to ECO 404 and Stat-Tools: Milk and Money (please read case prior to class)								Students assigned to Groups A, B, C, D
9/26/2018	Tupelo: C, D	Europet: A, B	Each student must write a 1 page memo on each case (i.e. 2 pages hard copy due beginning of class)						
10/3/2018				A: Tupelo	B: Tupelo	C: Europet	D: Europet	Each student must write a paper on the *other* case presented (Hard copy due at the start of next class)	Groups reshuffled after presentations)
10/10/2018	Compass: C, D	Cook: A, B	Each student must write a 1 page memo on each case (i.e. 2 pages hard copy due beginning of class)						
10/17/2018				A: Compass	B: Compass	C: Cook	D: Cook	Each student must write a paper on the *other* case presented (Hard copy due at the start of next class)	Groups reshuffled after presentations)
10/24/2018	Ocean Carriers: C, D	VHSS: A, B	Each student must write a 1 page memo on each case (i.e. 2 pages hard copy due beginning of class)						
10/31/2018				A: Ocean	B: Ocean	C: VHSS	D: VHSS	Each student must write a paper on the *other* case presented (Hard copy due at the start of next class)	Groups reshuffled after presentations)
11/14/2018	Gold Claims: C, D	Antamina: A, B	Each student must write a 1 page memo on each case (i.e. 2 pages hard copy due beginning of class)						
11/21/2018				A: Gold	B: Gold	C: Antamina	D: Antamina	Each student must write a paper on the *other* case presented (Hard copy due at the start of next class)	Groups reshuffled after presentations)
11/28/2018	Valuation Airthread: C, D	R&D Races: A, B	Each student must write a 1 page memo on each case (i.e. 2 pages hard copy due beginning of class)						
12/5/2018				A: Valuation	B: Valuation	C: R&D	D: R&D	Each student must write a paper on the *other* case presented (Hard copy due by 4 pm, Dec 12th, at Econ front desk)	

Discussions/participation graded on 0 – 3 scale: 0 points = completely unsatisfactory/no presentation/participation, 1 point = poor; 2 points = good; 3 points = excellent

Memos graded on 0 – 1 scale: 0 points = no memo submitted; 1 point = memo submitted

Presentation Rubric				
	Excellent	**Good**	**Fair**	**Problematic**
Score:	3	2	1	0
Case Analysis: Arguments, Evidence, Understanding	Clearly identifies salient issue[s] in case. Effective and forceful arguments based on solid economic and (if applicable) econometric analysis. Demonstrates sound understanding of issues and economic/econometric concepts. Clear recommendations and/or findings.	Adequate identification of salient issue[s] in case. Somewhat effective arguments based on adequate use of economic and (if applicable) econometric analysis. Demonstrates adequate understanding of issues and economic/econometric concepts. Adequate recommendations and/or findings.	Inadequate identification of salient issue[s] in case. Poor and/or invalid arguments based on sparse use of economic and (if applicable) econometric analysis. Demonstrates inadequate and/or confused understanding of issues and economic/econometric concepts. Inadequate recommendations and/or findings	Misidentifies salient issue[s] in case. Incorrect arguments which are not based on economic and (if applicable) econometric analysis. Demonstrates little to no understanding of issues and economic/econometric concepts. Lacks recommendations and/or findings
Organization & Flow: Clarity, Conciseness, Structure, Flow, Grammar, Interest to Audience	Presentation has excellent structure and flow. Slides are properly formatted and titled, and effectively and succinctly convey information and/or arguments. Data and econometric analysis (if applicable) presented clearly and effectively. Clear, effective tables, graphs, charts, etc. Excellent backup slides for the Q&A session effectively demonstrating "behind the scenes" analysis. Minimal (if any) errors.	Presentation has less than stellar structure and flow. Some issues with formatting and titles. Slides inadequately convey information and/or arguments. Inadequate presentation of data and econometric analysis (if applicable). Ineffective use of tables, graphs, charts, etc. Backup slides inadequate for Q&A session and ineffectively demonstrating "behind the scenes" analysis. A few minor errors.	Presentation has poor structure and flow. Major issues with formatting and titles. Slides fail to adequately convey information and/or arguments. Data and econometric analysis (if applicable) shoddily presented. Poorly organized tables, graphs, charts, etc. Backup slides completely inadequate for Q&A session and for demonstrating "behind the scenes" analysis. Many minor errors.	Presentation lacks structure and flow. Lots of major issues with formatting and titles. Slides do not convey information and/or argument. Data and econometric analysis (if any) poorly or not presented. Poor, ineffective, use of tables, graphs, charts, etc. No backup slides for demonstrating "behind the scenes" analysis. Many major errors.

Group presentations must be between 15 – 20 minutes long.
After each presentation, there will be a 10-minute "aggressive Q&A" session.
Each group must upload their slides and Excel file prior to their presentations at ECO 404 Quercus portal (one submission per group).
Please name all files as "CASE_TITLE_LAST_NAMES_OF_GROUP_MEMBERS" and list the names of all group members on the title slide/worksheet.

Here is a recommended (loose) template for presentations:
- Introduction and opening remarks ("statement of the central issue(s)")
- Agenda
- Overview & Background
- [If applicable] Data description with summary stats, graphs, and charts
- Analysis (please list regressions in a single table and report t-stats and/or p-values). Here is an excellent example.
- Recommendations/conclusion
- Backup slides and models (you should be able to bring these up in real time)
- You cannot "go outside" the case; i.e. stick to the facts and data in the case.

Here are two "old" examples of "professional" presentations: SH&E (Airline Consulting Firm) Presentation and Goldman Sachs presentation to Brown University Corporate Finance 2nd year Undergrad students.

Presentation Rubric				

Penalty for being absent when it's your turn to present: you will get 0 points on the presentation unless you provide a *valid* reason for why you missed the presentation. If you missed the presentation due to "medical reasons" then, within 72 hours of the start time of the missed presentation, you must provide the instructor with an original University of Toronto medical certificate (no photocopies or emailed notes) stating that you were too ill to present the ECO 404 case on that date and time (sic). The medical note *must* list the physician's OHIP number. Please note that "illness before the presentation" or "the student would have performed sub-optimally" are not acceptable medical reasons. Provided that the instructor is satisfied with your explanation, you will be permitted to "make up" the missed presentation by writing a 20-page paper on the case that you were supposed to present *and* meet the instructor for a one-hour oral-exam on that case (80% of the presentation score will be based on the results of the oral test and the remaining 20% will be based on the paper).

Solo Paper Rubric				
	Excellent	**Good**	**Fair**	**Problematic**
Score:	**3**	**2**	**1**	**0**
Economic Argument, Concepts & Evidence	Clearly stated argument & concepts. Economic reasoning is sound and indicates thorough understanding of concepts discussed in class.	Fairly clear and convincing argument. Adequate use of economic concepts. Demonstrates understanding of topics discussed in class.	Argument is confusing or contradictory. Weak definition/application of economic concepts. Demonstrates some understanding of topics discussed in class.	No clear argument. Confused or no use of economic concepts. Poor quality and little if any displayed evidence of understanding of topics discussed in class.
Organization & Flow	Each main point is written in a separate paragraph, in a logical order. Article closes with a clear and convincing call to action.	Each reason is written in paragraphs, but not necessarily separate. Closing gives a fairly clear and convincing call to action.	Reasons are not written in distinct paragraphs. Closing gives a call to action, although not well supported.	Reasons are not written in good paragraphs and have questionable order. No clear or convincing call to action at close.
Writing – Clarity, Conciseness, Sentence Structure, Grammar, Active Voice, interest to Reader	Easy to read, even for a non-specialist. Writing enhances understanding and interest. Short, clear, correctly structured sentences with active voice throughout. Minimal (if any) errors.	Mostly easy to read. Mostly short, clear, correctly structured sentences with active voice. A few minor errors.	Sentence/word level problems get in the way of understanding, distracting reader in places. Some passive voice and/or jargon.	Significant sentence/word level problems make it difficult for reader to understand argument. Considerable passive voice and/or jargon.

Papers must be between 4 – 5 pages long (excluding title page, appendices, and bibliography)
Please submit hard copy of paper and upload at Quercus by naming the file"CASE_TITLE_LAST_NAME". Please list your name on the title slide/worksheet.
The "paper assignments" are "individual assignments" and therefore it is an academic offense to, amongst other factors, take help from anyone else. Here's a recommended loose template for the paper:

- Introduction and opening remarks ("statement of the central issue(s)")
- Agenda
- Overview & Background
- [If applicable] Data description with summary stats, graphs, and charts

Solo Paper Rubric				
	Excellent	**Good**	**Fair**	**Problematic**
Score:	**3**	**2**	**1**	**0**

- Analysis (please list regressions in a single table and report t-stats and/or p-values). Here is an excellent example.
- Recommendations/conclusion
- Highly recommended "style guides": Economist Magazine Style Guide and The Elements of Style

Penalty for late submissions: 50% of the assignment score per calendar day that the assignment is late.

ACADEMIC INTEGRITY
Academic integrity is one of the cornerstones of the University of Toronto. It is critically important both to maintain our community which honors the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. According to Section B of the University of Toronto's Code of Behavior on Academic Matters which all students are expected to know and respect, it is an offense for students: to obtain unauthorized assistance on any assignment; showing another student completed work (e.g., an answer in a test); to falsify or alter any documentation required by the University. This, includes, but is not limited to, doctor's notes; to use or possess an unauthorized aid in any test or exam; to continue writing the exam after being instructed to stop writing. There are other offenses covered under the Code but these are by far the most common. Please respect these rules and the values which they protect.