

<u>Department of Economics (St. George)</u> ECO 404: Topics in Managerial Economics Spring 2018

Ajaz Hussain 5 – 8 pm, Wednesdays, SK 222

COURSE DESCRIPTION:

In this course, students will utilize economic and statistical methods to discuss analyze, model, present, and write papers on an eclectic variety of real world managerial-economics cases (list below is for the spring 2018 semester):

- Valuing financial assets;
- 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 there are no financial derivatives;
- Analyzing the (in)effectiveness of marketing campaigns;
- Attributing mutual fund manager performance to 'pedigree vs. grit';
- 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;
- Game theoretic analysis of future price wars.

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: ECO 200 (minimum grade of 75%)/ECO 204/ECO 206; ECO 220 /ECO 227/STA 250, STA 255/STA 257, STA 261; at least one FCE in ECO at the 300 level or higher. *Highly recommended preparation*: ECO 374/375 (or equivalent). 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						
E-mail: Sayed.hussain@utoronto.ca						
Office:	GE 212					
Office Hours:	Tuesdays 6 – 7 pm (in GE 212/213) and Wednesdays 4 – 5 pm (in classroom)					

REQUIRED COURSE MATERIAL:

ECO 404 HBS Case Pack:

Please visit http://cb.hbsp.harvard.edu/cbmp/access/72662314, register as a student, purchase and download the following cases, notes, and data supplements to your computer:

- 1. Milk and Money
- 2. Milk and Money Data Spreadsheet, Spreadsheet
- 3. Compass Maritime Services, LLC: Valuing Ships (additional material not in case packet: Ajaz's Note on Omitted Variable Bias)
- 4. Compass Maritime Services, LLC: Valuing Ships, Spreadsheet Supplement
- 5. Vereinigung Hamburger Schiffsmakler und Schiffsagenten e.V. (VHSS): Valuing Ships
- 6. Vereinigung Hamburger Schiffsmakler und Schiffsagenten e.V. (VHSS): Valuing Ships, Spreadsheet Supplement
- 7. Cook Composites and Polymers Co.
- 8. Pedigree vs. Grit: Predicting Mutual Fund Manager Performance (additional material not in case packet: Ajaz's Note on Omitted Variable Bias and Hedge Funds Performance and Personalities.)
- 9. Pedigree vs. Grit: Predicting Mutual Fund Manager Performance Data Spreadsheet, Spreadsheet Supplement
- 10. Fueling Sales at EuroPet Data Spreadsheet
- 11. Fueling Sales at EuroPet Data Spreadsheet, Spreadsheet Supplement
- 12. Gold Claim at Sturgeon Lake
- 13. Tupelo Medical: Managing Price Erosion (additional material not in case packet: Ajaz's Note on the Tupelo Model)
- 14. Tupelo Medical Spreadsheet
- 15. Valuation of AirThread Connections
- 16. Valuation of AirThread Connections, Spreadsheet Supplement
- 17. Note on Cash Flow Valuation Methods: Comparison of WACC, FTE, CCF and APV Approaches
- 18. Bidding for Antamina (additional material not in case packet: Real Options Monte Carlo simulation Excel model for Antamina Case and Ajaz's Note on Brownian Motion)
- 19. Bidding for Antamina, Spreadsheet Supplement
- 20. Bitter Competition: The Holland Sweetener Co. vs. NutraSweet (A)
- 21. Bitter Competition: The Holland Sweetener Co. vs. NutraSweet (A), Spreadsheet

Econometrics Software such as STATA, R, Matlab, or Stat-tools (incompatible with Apple machines)

REQUIRED COURSE MATERIAL:

1. Stat-tools is available for \$50 at http://www.palisade.com/

Excel 2007 (or later versions): running on PCs (not Apples) with Windows operating systems. Please install:

- 1. "Solver add-in"
- 2. "Data Analysis add-in"
- 3. "FRED Excel Add-in"
- 4. "Monte-Carlo Simulations Add-in"

Ajaz's Excel Lessons on YouTube (apologies for less than stellar quality and the soporific tone).

GRADING SCHEME:					
Component	% of Total Grade				
Group Q&A Session 1	5%				
Group Q&A Session 2	5%				
Group Summary 1	3%				
Group Summary 2	3%				
Group Presentation 1	10%				
Group Presentation 2	20%				
Solo Presentation 1	10%				
Individual memo 1	0.5%				
Individual memo 2	0.5%				
Individual memo 3	0.5%				
Individual memo 4	0.5%				
Individual memo 5	0.5%				
Individual memo 6	0.5%				
Individual Q&A 1	3%				
Individual Q&A 2	3%				
Individual paper 1	10%				
Individual paper 2	10%				
Individual paper 3	15%				
TOTAL COURSE GRADE =	100%				

COURSE PLAN:								
Class	Date	Group A	Group B	Group C	Group D	Comments	Readings	
1	1/10/2018	Introdu	ction to Stat-toc	ols, Solver, McSin	n, FRED.	Students randomly assigned in groups (effective next class)	Milk and Money Please install Stat- tools prior to class	

	COURSE PLAN:						
Class	Date	Group A	Group B	Group C	Group D	Comments	Readings
2	1/17/2018	Group A Q&A Case 1. Each student in Group A submits 1- page memo on case 1	Group B Q&A Case 2. Each student in Group B submits 1- page memo on case 2	Group C 5- min PPT presentation summarizing Case 1. Each student in Group C submits 1- page memo on case 1	Group D 5- min PPT presentation summarizing Case 2. Each student in Group D submits 1- page memo on case 2	Memo due at start of class. PPT slides due at Blackboard before class.	Case 1: Compass Maritime Services, LLC: Valuing Ships & Case 2: Vereinigung Hamburger Schiffsmakler und Schiffsagenten e.V. (VHSS): Valuing Ships
3	1/24/2018	Group A presents Case 1	Group B presents Case 2	Each student in Group C writes (individual) 5-page paper on Case 1	Each student in Group D writes (individual) 5-page paper on Case 2	PPT slides and papers due at Blackboard before class.	
4	1/31/2018	Group A 5- min PPT presentation summarizing Case 3. Each student in Group A submits 1- page memo on case 3	Group B 5- min PPT presentation summarizing Case 4. Each student in Group B submits 1- page memo on case 4	Group C Q&A Case 3. Each student in Group C submits 1- page memo on case 3	Group D Q&A Case 4. Each student in Group D submits 1- page memo on case 4	Memo due at start of class. PPT slides due at Blackboard before class.	ТВА
5	2/7/2018	Each student in Group A writes (individual) 5-page paper on Case 3	Each student in Group B writes (individual) 5-page paper on Case 4	Group C presents Case 3	Group D presents Case 4	PPT slides and papers due at Blackboard before class.	ТВА
6	2/14/2018	Each student submits 1-page memo on case 5. Class-wide Q&A Case 5				Memo due at start of class.	ТВА
	2/21/2018	NO CLASS					
7	2/28/2018		es an individual p ndividual 5-page	PPT slides and papers due at Blackboard before class. Groups re- shuffled.	ТВА		

	COURSE PLAN:						
Class	Date	Group A	Group B	Group C	Group D	Comments	Readings
8	3/7/2018	Group A Q&A Case 6. Each student in Group A submits 1- page memo on case 6	Group B Q&A Case 7. Each student in Group B submits 1- page memo on case 7	Group C 5- min PPT Summary of Case 6. Each student in Group C submits 1- page memo on case 6	Group D 5- min PPT Summary of Case 7. Each student in Group D submits 1- page memo on case 7	Memo due at start of class. PPT slides due at Blackboard before class.	ТВА
9	3/14/2018	Group A presents Case 6	Group B presents Case 7	Each student in Group C writes (individual) 5-page paper on Case 6	Each student in Group D writes (individual) 5-page paper on Case 7	PPT slides and papers due at Blackboard before class.	ТВА
10	3/21/2018	Group A 5- min PPT Summary of Case 8. Each student in Group A submits 1- page memo on case 8	Group B 5- min PPT Summary of Case 9. Each student in Group B submits 1- page memo on case 9	Group C Q&A Case 8. Each student in Group C submits 1- page memo on case 8	Group D Q&A Case 9. Each student in Group D submits 1- page memo on case 9	Memo due at start of class. PPT slides due at Blackboard before class.	ТВА
11	3/28/2018	Each student in Group A writes (individual) 5-page paper on Case 8	Each student in Group B writes (individual) 5-page paper on Case 9	Group C presents Case 8	Group D presents Case 9	PPT slides and papers due at Blackboard before class.	ТВА
12	4/4/2018		ubmits a 1-page ent writes an (in on this	Memo due at start of class. 10-page paper due one week later.	ТВА		

Each "Q&A" session graded as follows: 0 points = completely unsatisfactory/no presentation/participation, 1 point = poor; 2 points = good; 3 points = excellent

Each "5 minutes PPT summary presentation" graded as follows: 0 points = completely unsatisfactory/no presentation/participation, 1 point = poor; 2 points = good; 3 points = excellent

Each memo will graded as follows: 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 at least 40 minutes long. There will be an "aggressive Q&A" session after all groups have presented. Prior to the presentations, each group must upload their slides and Excel file (one submission per group) through the "Group Presentations Tabs" on ECO 404's Blackboard. 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 (<u>loose</u>) template for presentations:

• Introduction and opening remarks ("statement of the central issue(s)")

Presentation Rubric

- 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 <u>excellent</u> 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.

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).

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,	Easy to read, even for a non-specialist. Writing enhances understanding and	Mostly easy to read. Mostly short, clear, correctly structured	Sentence/word level problems get in the way of understanding, distracting	Significant sentence/word level problems make it difficult for reader to			

Paper Rubric							
	Excellent	Problematic					
Score:	3	2	1	0			
Sentence	interest. Short, clear,	sentences with	reader in places. Some	understand			
Structure,	correctly structured	active voice. A few	passive voice and/or jargon.	argument.			
Grammar,	sentences with active	minor errors.		Considerable passive			
Active Voice,	voice throughout.			voice and/or jargon.			
interest to	Minimal (if any) errors.						
Reader							

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 <u>loose</u> 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
- Analysis (please list regressions in a single table and report t-stats and/or p-values). Here is an <u>excellent</u> 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 <u>Code of Behavior on Academic Matters</u> 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.