

# Syllabus - COURSE SCHEDULE

Important: **ALL TIMES EASTERN** - Please see the [University Policies](#) section of your Syllabus for details.

Week	Module	Readings	Activities and Assignments	Due Date
<b>Week 1</b>	<a href="#">Module 01: Introduction</a>	<ol style="list-style-type: none"> <li>Text: Chapter 1</li> <li>Module Enrichment</li> <li>Supporting Articles</li> </ol>	<a href="#">Introduce Yourself to Your Team</a> (ungraded)	Friday, <b>January 12, 2018</b> at 11:59 PM
	<a href="#">Module 02: The CBA Modeling Process</a>		<a href="#">Quiz 1</a> (2.5%)	Available Friday, <b>January 12, 2018</b> at 12:01 AM until Friday, <b>January 19, 2018</b> at 11:59 PM
				Groups for <a href="#">Group Discussions</a> (Created by Technical Support)
<b>Week 2</b>	<a href="#">Module 03: Use of Basic Tools</a>	<ol style="list-style-type: none"> <li>Text: Chapter 6</li> <li>Module Enrichment</li> <li>Discussion Article</li> </ol>		
<b>Week 3</b>	<a href="#">Module 04: Efficiency</a>	<ol style="list-style-type: none"> <li>Text: Chapter 2: pp. 27-40, 42-49</li> <li>Module Enrichment</li> <li>Supporting Article</li> </ol>	<a href="#">Group Discussion 1</a> ( <i>Group Discussions</i> are worth a total of <b>10%</b> of your final grade)	The discussion will be available from Friday, <b>January 12, 2018</b> at 7:00 AM to Friday, <b>January 19, 2018</b> at 11:59 PM
<b>Week 4</b>	<a href="#">Module 04: Efficiency</a>	<ol style="list-style-type: none"> <li>Text: Chapter 3: pp. 52-64, 69-74</li> <li>Module Enrichment</li> <li>Supporting Article</li> </ol>	<a href="#">Quiz 2</a> (2.5%)	Available Friday, <b>January 26, 2018</b> at 12:01 AM until Friday, <b>February 2, 2018</b> at 11:59 PM

<b>Week 5</b>	<a href="#">Module 05: Primary Markets</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 4</li> <li>2. Module Enrichment</li> <li>3. Supporting Article</li> </ol>	<a href="#">Assignment 1 (10%)</a> Problem Set 1 available <i>Monday, January 15, 2018</i>	Friday, <b>February 2, 2018</b> at 11:59 PM
<b>Week 6</b>	<a href="#">Module 06: Secondary Markets</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 5</li> <li>2. Module Enrichment</li> <li>3. Discussion Article</li> </ol>	<a href="#">Group Discussion 2</a>	The discussion will be available from Friday, <b>February 2, 2018</b> at 7:00 AM to Friday, <b>February 9, 2018</b> at 11:59 PM
			<a href="#">One Minute Summary 1 (0.5% bonus)</a>	This optional activity will be available from Monday, <b>February 5, 2018</b> at 7:00 AM to Friday, <b>February 9, 2018</b> by 11:59 PM
<b>Week 7</b>	<a href="#">Module 07: Predicting and Monetizing Impacts</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 11</li> <li>2. Module Enrichment</li> <li>3. Supporting Article</li> </ol>	<a href="#">Quiz 3 (2.5%)</a>	Available Friday, <b>February 16, 2018</b> at 12:01 AM until Friday, <b>March 2, 2018</b> at 11:59 PM
<b>Reading Week - Study Days (Sunday, February 18, 2018 to Saturday, February 24, 2018)</b>				
<b>Week 8</b>	<a href="#">Module 08: Valuation Using Observed Behaviour: Indirect Methods</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 14</li> <li>2. Module Enrichment</li> <li>3. Supporting Article</li> </ol>	<a href="#">Assignment 2 (10%)</a> Written Paper	Friday, <b>March 2, 2018</b> at 11:59 PM
<b>Week 9</b>	<a href="#">Module 09: Valuation Using Observed Behaviour: Application of Indirect Methods</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 14</li> <li>2. Module Enrichment</li> <li>3. Discussion Article</li> </ol>	<a href="#">Group Discussion 3</a>	The discussion will be available from Friday, <b>March 2, 2018</b> at 7:00 AM to Friday, <b>March 9, 2018</b> at 11:59 PM
<b>Week 10</b>	<a href="#">Module 10:</a>	<ol style="list-style-type: none"> <li>1. Text: Chapter 16</li> </ol>	<a href="#">Assignment 3</a>	Friday, <b>March 16, 2018</b>

	<a href="#">Shadow Prices From Secondary Markets</a>	<ol style="list-style-type: none"> <li>Module Enrichment</li> <li>Supporting Article</li> </ol>	<b>(10%)</b> Problem Set <i>available</i> <i>Friday,</i> <i>March 2, 2018</i>	at 11:59 PM
<b>Week 11</b>	<a href="#">Module 11: Valuation Using Pilot Projects</a>	<ol style="list-style-type: none"> <li>Text: Chapter 12 pp. 292-307 (start at CBAs of Experiments and Quasi-Experiments and stop at Choosing Prediction Parameters)</li> <li>Module Enrichment</li> <li>Supporting Article</li> </ol>	<a href="#">Quiz 4 (2.5%)</a>	Available Friday, <b>March 23, 2018</b> at 12:01 AM until Saturday, <b>March 31, 2018</b> at 11:59 PM
<b>Week 12</b>	<a href="#">Module 12: Risk and Uncertainty &amp; Final CBA Step</a>	<ol style="list-style-type: none"> <li>Text: Chapter 7 pp. 167-187 (stop at Information and Quasi-Option Value)</li> <li>Module Enrichment</li> <li>Discussion Article</li> </ol>	<a href="#">Group Discussion 4</a>	The discussion will be available from Friday, <b>March 23, 2018</b> at 7:00 AM to Saturday, <b>March 31, 2018</b> at 11:59 PM
			<a href="#">One Minute Summary 2 (0.5% bonus)</a>	This optional activity will be available from Monday, <b>March 26, 2018</b> at 7:00 AM to Saturday, <b>March 31, 2018</b> by 11:59 PM
			<a href="#">Participation Self-Assessment</a>	The self-assessment will be available from Friday, <b>March 23, 2018</b> at 7:00 AM to Saturday, <b>March 31, 2018</b> at 11:59 PM
<b>Final Examination</b>			<a href="#">Final Examination (50%)</a>	

## Final Examination Arrangements and Schedule

Please carefully review the information about [writing exams](#) for online courses, including dates, locations, how to make examination arrangements, writing with a proctor, and deadlines.

If you are taking **any on-campus courses**, you will automatically be scheduled to write your exam on campus. No action is required.

If you are taking **only online courses**, do one of the following:

- » If your **address in QUEST is within 100 km** of an [examination centre](#), you must choose an exam centre in [Quest](#) by **Sunday, January 14, 2018**. This must be done each term.
- » If your address in Quest is **more than 100 km from an exam centre**, you must arrange for a proctor. Please review the guidelines and deadlines for [writing with a proctor](#). This must be done each term.

Your online course exam schedule will be available in Quest approximately four weeks before your exam date(s). Instructions on how to find your schedule are posted on the [Quest Help](#) page.

University of Waterloo Senate-approved [academic regulations related to assignments, tests, and final exams](#) can be found on the Registrar's website.

## Official Grades and Course Access

Official Grades and Academic Standings are available through [Quest](#).

Your access to this course will continue for the duration of the current term. You will not have access to this course once the next term begins.

## Syllabus - CONTACT INFORMATION

### Announcements

Your instructor uses the **Announcements** widget on the **Course Home** page during the term to communicate new or changing information regarding due dates, instructor absence, etc., as needed. You are expected to read the announcements on a regular basis.

To ensure you are viewing the complete list of announcements, you may need to click **Show All Announcements**.

### Discussions

A **General Discussion** topic\* has also been made available to allow students to communicate with peers in the course. This discussion is intended for communication between students and is not typically monitored by the instructor. Information regarding assigned discussions can be found in the Activities and Assignments pages of the Syllabus.

## Contact Us

Who and Why	Contact Details
<p><b>Instructor</b></p> <ul style="list-style-type: none"> <li>» Course-related questions (e.g., course content, deadlines, assignments, etc.)</li> <li>» Questions of a personal nature</li> </ul>	<p><b>Questions of a personal nature</b> can be directed to your instructor.</p> <p>Instructor: Fiona Rahman  <a href="mailto:frahman@uwaterloo.ca">frahman@uwaterloo.ca</a></p> <p>Your instructor checks email frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday. Please check the <b>Announcements</b> section regularly.</p>
<p><b>Technical Support,</b> Centre for Extended Learning</p> <ul style="list-style-type: none"> <li>» Technical problems with Waterloo LEARN</li> </ul>	<p><a href="mailto:learnhelp@uwaterloo.ca">learnhelp@uwaterloo.ca</a></p> <p>Include your full name, WatIAM user ID, student number, and course name and number.</p> <p>Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time).</p> <p><a href="#">LEARN Help Student Documentation</a></p>
<p><b>Learner Support Services,</b></p>	<p><a href="#">Student Resources</a></p>

**Centre for Extended Learning**

- » General inquiries
- » WatCards (Student ID Cards)
- » Examination information

[extendedlearning@uwaterloo.ca](mailto:extendedlearning@uwaterloo.ca)

+1 519-888-4002

Include your full name, WatIAM user ID, student number, and course name and number.

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\*Discussion topics can be accessed by clicking **Connect** and then **Discussions** on the course navigation bar above.

# Syllabus- COURSE DESCRIPTION AND OBJECTIVES

## Course Description

The objective of this course is to provide a greater understanding of how economic concepts can facilitate the decision making process within both the private and public sector. The course will leverage various micro-economic concepts and introduce new concepts to form the foundation for critical decision making. Cost benefit analysis (CBA) uses economic knowledge in a practical way, applying the theory and processes to real-life problems. The intent of this course is to equip the student with analytical, economic theory and supporting processes which can be leveraged when facing strategic business or government policy decisions – in order to provide decision makers direction on what should be done. This course is also intended to raise awareness to the often controversial issues and criticisms surrounding the CBA process and/or CBA results.

## Course Objectives

By the end of this course, successful students will be able to:

- » describe the process of CBA and the controversy and limitations associated with it;
- » define key concepts leveraged in the CBA process, including:
  - » willingness-to-pay,
  - » opportunity cost,
  - » pareto efficiency,
  - » consumer and producer surplus,
  - » compensating and equivalent variation, and
  - » cash discounting;
- » summarize the CBA process flow and its supporting conventional steps;
- » describe and assess impacts of decisions in primary and secondary markets that are efficient or inefficient within the CBA process;
- » describe various approaches within the CBA process for the valuation of non-market goods;
- » explain how uncertainty enters into the CBA process and how to apply the CBA process to mitigate associated risk; and
- » analytically review a CBA or CBA journal article and provide an assessment of the corresponding CBA strengths and weaknesses with supporting justification.

*This online course was developed by Wendy Roth and Derek Picard, with instructional design and multimedia development support provided by the Centre for Extended Learning.*



## Syllabus - ABOUT THE COURSE INSTRUCTOR AND AUTHORS



### Course Instructor - Fiona T. Rahman

#### ABOUT MYSELF:

I began teaching at the University of Waterloo's Department of Economics in winter 2009. Since then I have enjoyed teaching a variety of undergraduate economics courses at this institution. My teaching portfolio includes Introduction to Microeconomics, Introduction to Macroeconomics, Macroeconomic Theory I, Introduction to International Economics, Cost Benefit Analysis & Project Evaluation and Environmental Economics. Occasionally I teach at Wilfrid Laurier University as well. Prior to coming at Waterloo, I worked as a lecturer in a private university of Bangladesh for three and a half years.

My academic background includes a Master of Arts (Economics) from the University of Waterloo and a Master of Arts (Business Economics) from Wilfrid Laurier University. I also hold a Master of Social Sciences (Economics) and a Bachelor of Social Sciences (Economics) from the University of Dhaka, Bangladesh.

I am a co-author of the paper 'The Role of Economic Factors, Including the Level of *Tuition*, In Individual University Participation Decisions in Canada' published in the Canadian Journal of Higher Education (2005). My recent research work includes working with Dr. Anindya Sen of Economics Department (University of Waterloo) on a research paper analyzing the distribution of stimulus funding disbursed by the Canadian government to ensure quick recovery of the economy from the deepest global recession.



### Course Author - Wendy Roth

Ms. Wendy Roth is a professional consultant, dividing her time between academic, research, and corporate endeavors. She has extensive experience as an educator in a wide range of economic topics. Her teaching portfolio includes the Economics of Education, Cost Benefit Analysis, and Introductory Micro and Macroeconomics. She also actively tutors all levels of math at the primary and secondary school level. Her education philosophy is one that focuses on learning and applying theoretical concepts — in a practical manner. Ms. Roth's research efforts focus on the application of economic theory in education funding and policy decisions, with an emphasis on education in emerging nations. Ms. Roth has served over 25 clients across a wide spectrum of industries and educational institutions, focusing on program, project, and change management; including cost benefit analysis and operational efficiency.



Ms. Roth received her Doctor of Philosophy (PhD), Educational Leadership and Policy, from the Ontario Institute for Studies and Education (OISE) at the University of Toronto. She holds a Master of Arts, Economics, from the University of Toronto and a Master of Education, Administration and Policy, from the Ontario Institute for Studies and Education (OISE) at the University of Toronto. She also holds a Bachelor of Arts, Honours Economics (Dean's Honours List) and a Bachelor of Mathematics, Co-Operative Program from the University of Waterloo.



## Course Author - Derek Picard

Derek Picard is a professional consultant specializing in the application and measurement of economic concepts for decision makers in both the public and private sectors. He applies the fundamental principles of economics to issues faced by corporate leaders, government agencies, and industry associations. Mr. Picard holds a graduate degree in economics and an undergraduate degree in econometrics from the University of Waterloo. He is also an Alumni Access Advisory Member at the UW's Research and Technology Park.

Mr. Picard's research has focused on the impact of organizational decisions such as capital investments, policy, and design.



## Syllabus - MATERIALS AND RESOURCES

# Textbooks, Course Reserves, and Resources

## Textbooks

### Required

- » CEL Dept., (2017). *ECON 361 Cost Benefit Analysis: Concept and Practice (4th Edition)*. University of Waterloo.

### Recommended

- » McCloskey, Deirdre N. (2000). *Economical Writing (2nd Edition)*. Waveland Press Inc. ISBN = 1-57766-063-3

**Note:** The optional text is a short, light read on how to effectively communicate economic concepts and ideas to any audience. This text will equip you with tips and tricks that are easy to understand and implement. A critical component to any CBA is effective communications, and as such, I highly suggest this text book as a reference for this course (and for your future economic writing adventures).

**For textbook ordering information, please contact the [Waterloo Bookstore](#).**

For your convenience, you can compile a list of required and optional course materials through [BookLook](#) using your Quest userID and password. If you are having difficulties ordering online and wish to call the Waterloo Bookstore, their phone number is +1 519-888-4673 or toll-free at +1 866-330-7933. Please be aware that textbook orders **CANNOT** be taken over the phone.

## Course Reserves

Course Reserves can be accessed using the **Library Resources** widget on the **Course Home** page.

## Resources

- » [Library services for co-op students on work term and distance education students](#)

## Syllabus - GRADE BREAKDOWN

### Grade Breakdown

Activities and Assignments	Weight (%)
Introduce Yourself to Your Team	Ungraded
Group Discussion Activity	10%
Assignment 1 (Problem Set 1)	10%
Assignment 2 (Written Paper)	10%
Assignment 3 (Problem Set 2)	10%
Quizzes (4 x 2.5%)	10%
Final Examination	50%
One Minute Summaries (x2)	1% bonus (0.5% per summary)

Students will be given the opportunity to secure up to one bonus mark during the term. This can be attained through two One Minute Summaries, which give you the opportunity to provide feedback about the course and to ask questions about the material. A half mark will be granted for each One Minute Summary that complies with the grading scheme.

## Syllabus - COURSE POLICIES



# Late Policy

Late assignments will be penalized at 10% per day, with the exception of documented medical illness. **Assignments will not be accepted five (5) days after the due date.** Assignment Dropboxes will close 5 days after the due date.

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## Syllabus - UNIVERSITY POLICIES

# Submission Times

Please be aware that the University of Waterloo is located in the **Eastern Time Zone** (GMT or UTC-5 during standard time and UTC-4 during daylight saving time) and, as such, the time that your activities and/or assignments are due is based on this zone. If you are outside the Eastern Time Zone and require assistance with converting your time, please try the [Ontario, Canada Time Converter](#).

# Accommodation Due to Illness

**If your instructor has provided specific procedures for you to follow if you miss assignment due dates, term tests, or a final examination, adhere to those instructions.** Otherwise:

## Missed Assignments/Tests/Quizzes

Contact the instructor as soon as you realize there will be a problem, and preferably within 48 hours, but no more than 72 hours, have a medical practitioner complete a [Verification of Illness Form](#).

**Email** a scanned copy of the Verification of Illness Form to your instructor. In your email to the instructor, provide your name, student ID number, and exactly what course activity you missed.

Further information regarding Management of Requests for Accommodation Due to Illness can be found on the [Accommodation due to illness](#) page.

## Missed Final Examinations

If this course has a final exam and if you are unable to write a final examination due to illness, seek medical treatment and have a medical practitioner complete a [Verification of Illness Form](#). Email a scanned copy to the Centre for Extended Learning (CEL) at [extendedlearning@uwaterloo.ca](mailto:extendedlearning@uwaterloo.ca) within 48 hours of your missed exam. Make sure you include your name, student ID number, and the exam(s) missed. You will be **REQUIRED** to hand in the original completed form before you write the make-up examination.

After your completed Verification of Illness Form has been received and processed, you will be emailed your alternate exam date and time. This can take up to 2 business days. If you are within **150 km** of Waterloo you should be prepared to write in Waterloo on the additional CEL [exam dates](#). If you live outside the 150 km radius, CEL will work with you to make suitable arrangements.

Further information about [Examination Accommodation Due to Illness](#) regulations is available in the Undergraduate Calendar.

# Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. **If you have not already completed the online**

**tutorial regarding academic integrity you should do so as soon as possible.** Undergraduate students should see the [Academic Integrity Tutorial](#) and graduate students should see the [Graduate Students and Academic Integrity](#) website.

Proper citations are part of academic integrity. Citations in CEL course materials usually follow CEL style, which is based on APA style. Your course may follow a different style. If you are uncertain which style to use for an assignment, please confirm with your instructor or TA.

For further information on academic integrity, please visit the [Office of Academic Integrity](#).

## Discipline

A student is expected to know what constitutes [academic integrity](#) to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

## Appeals

A decision made or penalty imposed under [Policy 70 - Student Petitions and Grievances](#), (other than a petition) or [Policy 71 - Student Discipline](#), may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

## Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt please be certain to contact the department’s administrative assistant who will provide further assistance.

## Final Grades

In accordance with [Policy 46 - Information Management](#), Appendix A - Access to and Release of Student Information, the Centre for Extended Learning does not release final examination grades or final course grades to students. Students must go to [Quest](#) to see all final grades. Any grades posted in Waterloo LEARN are unofficial.

## AccessAbility Services

[AccessAbility Services](#), located in Needles Hall, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodation to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term and for each course.

# Accessibility Statement

The Centre for Extended Learning strives to meet the needs of all our online learners. Our ongoing efforts to become aligned with the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) are guided by University of Waterloo accessibility [Legislation](#) and policy and the [World Wide Web Consortium's \(W3C\) Web Content Accessibility Guidelines \(WCAG\) 2.0](#). The majority of our online courses are currently delivered via the Desire2Learn Learning Environment. Learn more about [Desire2Learn's Accessibility Standards Compliance](#).

## Use of Computing and Network Resources

Please see the [Guidelines on Use of Waterloo Computing and Network Resources](#).

## Copyright Information

### UWaterloo's Web Pages

All rights, including copyright, images, slides, audio, and video components, of the content of this course are owned by the course author, unless otherwise stated. These web pages are owned or controlled by the University of Waterloo, Centre for Extended Learning. By accessing the web pages, you agree that you may only download the content for your own personal, non-commercial use. You are not permitted to copy, broadcast, download, store (in any medium), transmit, show or play in public, adapt, or change in any way the content of these web pages for any other purpose whatsoever without the prior written permission of the course author and the University of Waterloo, Centre for Extended Learning.

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If there are any questions about this notice, please contact the University of Waterloo, Centre for Extended Learning, Waterloo, Ontario, Canada, N2L 3G1 or [extendedlearning@uwaterloo.ca](mailto:extendedlearning@uwaterloo.ca).