

# Economics of Education – Course Outline

The purpose of this document is to articulate a course outline for Econ 485 Economics of Education. The scope of this document includes course organization, description, learning objectives, weekly schedule of topics, pre-requisites, readings, assessment, academic integrity and relevant university policies, and weekly reading schedule.

## **Course Organization**

*Lectures:* Tuesday, 2:30 to 5:20, Hagey Hall 235  
*Instructor:* Professor Wendy Roth  
*Office Hours:* Tuesday 11:00 to 1:00 and 5:30 to 6:30 or by appointment  
Hagey Hall 219  
*E-Mail address:* wroth@uwaterloo.ca  
E-mail will be used to set-up appointments or telephone discussions. E-mail will not be used for detailed questions or discussions on course content.

## **Course Description**

This course provides an introduction to an economic view of education. The economics of education is initially reviewed from a historic stance and highlighted as one discipline within a wide spectrum of disciplines focused on education. This course introduces and analyzes a wide range of education research streams, from an economic viewpoint, including human capital theory, the production of education, costing and financing of education, education planning, teachers and teachers markets, and education markets and choice. Analysis entails review of underlying economic theory and practical aspects including economic policy pertaining to education. This course also presents an overview of central concepts and challenges associated with various research paradigms and methods used in the economic of education, including econometric strategies. Students will have the opportunity to develop their research skills and learn how to distinguish between good and challenged research papers.

An emphasis on education in developing nations is taken in this course, as education is an important component within an integrated social, political and economic agenda to promote sustainable growth in poor countries. Education increases productivity, promotes the generation of new ideas, and paves the way towards greater democracy – all drivers of growth.

This course is targeted to 4th year economic students interested in economic research and analysis, education, developing nations, or economic policy. This course is a heavy reading and writing undertaking with an estimated effort of 10 to 15 hours per week, not including lectures. Pre-readings and active class participation is essential. Lectures will be conducted via PowerPoint presentations (which will be made available during class), and time will be allotted for thoughtful questions, group discussions, and presentations during class.

## **Course Learning Objectives**

This course has 5 key learning objectives as follows:

1. Identify and understand major research streams in the economics of education.
2. Describe theories and concepts important to each major research stream in the economics of education.
3. Understand practical scenarios of applied theory of education, from an economic viewpoint, in the context of developing nations.
4. Develop skills used in the analysis and interpretation of research and data in education.
5. Improve written and oral communications skills.

## **Weekly Schedule of Topics**

The following table articulates a tentative list of course topics by week. Note that scheduling is subjective to change, as required during the term.

<b><i>Week</i></b>	<b><i>Course Topic</i></b>
1	Overview Of Economics Of Education History Of Economics Of Education
2	Human Capital Theory Returns To Education Costs And Benefits Of Education
3	Production Of Education Education Production Function Analysis
4	Inside The Classroom Outside The Classroom
5	Education Research Approaches Econometric Challenges Cost Benefit Analysis
6	Costing Of Education Financing Of Education
7	Education And Economic Growth Education Planning
8	Teacher Markets Teacher Supply Teacher Incentive
9	State In Education Education Privatisation Education Accountability
10	Education In Developing Nations Education, Poverty and Inequality
11	Early Childhood Education Discrimination Education Tensions
12	Technology In Education Future Trends And Concluding Thoughts

## **Course Pre-Requisites**

Students enrolled in this course must have successfully completed Economics 301 (Microeconomic Theory), Economics 302 (Macroeconomic Theory), Economics 221 (Statistics for Economists), and Economic 321 (Introduction to Econometrics). The Professor will consider waiving these requirements for students that are seriously motivated and have adequate equivalences in other fields, but on an exception basis only.

## **Course Readings**

On a weekly basis, two types of readings are considered mandatory – readings from the course readings booklet and supplementary readings.

The course readings booklet is a compilation of articles by economists within each major research stream in the economics of education. Each article is rich in detail, current, and written by experts in their respective fields. Reading booklets can be found at the University of Waterloo Bookstore. Articles come from the following textbook:

Brewer, D.J., McEwan, P.J. 2010. *Economics of Education*. San Diego: California: Elsevier Ltd.

Required supplementary readings consist of various academic articles that can be found at the University of Waterloo library or on the Internet.

The course also has an optional text that is short, light read on how to effectively communicate economic concepts and ideas to an audience. This text will help you with tips and tricks that are easy to understand and implement. I highly recommend the book as a reference for this course and for your future writing adventures. The optional text, which can be found in the University of Waterloo Bookstore, is as follows:

McCloskey, D. 2000. *Economical Writing (2<sup>nd</sup> Edition)*. Waveland Press Inc. ISBN = 1-5776-063-3.

## **Course Assessment**

The final grade for this course is calculated from five components as follows: class participation, reading responses, short written paper, group presentation, and final term research paper.

### **Class Participation = 10% of the final grade**

Each student is expected to complete required mandatory readings before class and be prepared to discuss their thoughts and questions on the readings. Attendance to class is essential. If a student must miss a class, notification must be provided to the Professor as soon as possible. Active, informed, and professional class participation is critical to students learning and will be graded. Thoughtful comments, questions and healthy criticism during class are encouraged as sharing ideas and being respectful of alternative views will enrich the learning experience for all.

Class participation will be graded through a feedback looping process as follows. At the end of every class, students will be given 15 minutes to answer two questions about the class. The first question asks students to articulate the most important concept learned in the class and why. The second question asks students what concept they feel they have not yet fully grasped and why. Responses are to be in full, complete sentences with appropriate language (e.g. not point form with abbreviations). The feedback looping process will occur at the end of classes in week 2 to 11 – feedback questions will be evaluated and are worth 1% each. It is important to note that marks are based on clearly stating concepts students have learned and/or not learned and why. Marks are not based on what concept was or was not well understood.

### **Reading Response Summary = 15% of the final grade**

This course focuses on developing skills in reading, interpreting and assessing research papers from both a theoretical and practical perspective. Every supplementary reading will require students to create a Reading Response Summary for that reading, which includes information such as author, audience, main points, important sub-points supporting the main point, most compelling quotes, conclusions, evidence, implications, and outstanding questions. A Reading Response Summary template and supporting example will be reviewed during the first class.

Reading response summaries are to be completed on a weekly basis. Three reading responses will be collected at the onset of class in week 4, week 8, and week 12. Each Reading Response Summary is worth 5% of the final grade. Students will be asked to bring all reading responses with them to class and the Professor will identify which reading response is to be handed in at the onset of the class.

### **Critical Reading Paper = 20% of the final grade**

During the first class, a list of research articles for students to select from, for their critical reading paper will be provided. The critical reading paper is not to exceed 5 written pages (not including the bibliography and title page), double spaced using APA or MLA formatting. The critical reading paper is due at the onset of class in week 5.

The first portion of the critical reading paper is to provide a summary of the article, and is to answer the following questions.

- 1 – What is the primary argument/hypothesis the author wishes to address?
- 2 – Why is the question/hypothesis important?
- 3 – What data sources the author uses?
- 4 – Provide a summary description of the author's model.
- 5 – What are the author's conclusions?

The second portion of the critical reading paper is to provide an analysis of the article, and is to answer the following questions:

- 1 – Do you support the author's conclusions and why?
- 2 – Did the results obtained justify the conclusions and why?
- 3 – What, if any, empirical challenges exist and how could they be corrected?

**Group Assignment = 15% of the final grade**

In pairs of 2, students will be asked to present a summary of a specific supplementary reading. The presentation will be in PowerPoint and a template for the agenda will be provided to students during the first class. Students will also be expected to walk the class through a discussion period, post or during the presentation of the summary (via discussion points, key questions, or other innovative approaches that students wish to undertake). The summary presentation and discussion period is to be 30 minutes in total, with approximately 10 minutes (within the 30 minutes) allocated for group discussion. One presentation per week will occur in weeks 4 to week 10, during the second half of class.

**Term Research Paper = 40% of the final grade**

Students are required to prepare a major research paper on a topic of their choosing that is relevant to one of the topics discussed in the course and approved by the Professor. The paper must draw upon at least 6 sources, 3 of which should be from the course required readings. Additional references are welcome – there is no limit to the number of references. It is suggested that students identify a topic that they have an interest and passion for that is applicable to the economics of education. A list of suggestions will be provided to students during the first class. Students will not be permitted to share a topic, topics will be approved on a first come, first serve basis.

A one page, single spaced term paper overview summarizing the topic and literature to be drawn upon is required for submission at the onset of class in week 8, at the latest. Each student is asked to receive approval from the Professor on their selection of topic before writing the paper overview. The term paper overview is worth 5% of the final grade and is due at the onset of class in week 8.

The final paper is to be 15 to 20 pages (not including the bibliography and title page), double spaced using APA or MLA formatting. The paper is due one week after the final class – the exact date will be provided by the Professor in the first class. The final term paper is worth 35% of the final grade. The final paper is to be submitted to the Professor via an e-mail attachment.

The final paper is to include the following: title page, table of contents, introduction, review of literature, discussion, conclusions, bibliography. Further details on requirements within each section will be provided to students during the first class.

### Final Grade Allocation Summary

The following table articulates each component of the term grade and the corresponding percentage allocation of the final grade.

<i>Grade Component</i>	<i>% Allocation of Final Grade</i>
Class Participation	10
Reading Responses	15
Short Research Paper	20
Group Presentation	15
Term Research Paper Overview	5
Term Research Paper	35
<i>TOTAL</i>	<i>100</i>

The following table articulates each component of the term grade and the corresponding due dates.

<i>Grade Component</i>	<i>Due Date</i>
Class Participation	End of class in weeks 2 to 11
Reading Responses	
1 <sup>st</sup> Reading Response	Onset of week 4 class
2 <sup>nd</sup> Reading Response	Onset of week 8 class
3 <sup>rd</sup> Reading Response	Onset of week 12 class
Short Research Paper	Onset of week 5 class
Group Presentation	During weeks 4 to 10
Term Research Paper Overview	Onset of week 8 class
Term Research Paper	One week after the final class – the exact date will be provided by the Professor in the first class

***All assignments are to be handed in one time.*** Extensions will only be granted for valid medical reasons with a supportive doctor's note. Late assignments will not be accepted 5 days after the due date, and a 10% reduction will apply for every day late if a valid medical reason and supportive doctor's note is not provided.

## ***Academic Integrity and Relevant University Policies***

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, 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 professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offences and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

**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, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

**Appeals:** A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

**Academic Integrity website (Arts):**

[http://arts.uwaterloo.ca/arts/ugrad/academic\\_responsibility.html](http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html)

**Academic Integrity Office (University):** <http://uwaterloo.ca/academicintegrity/>

### **Accommodation for Students with Disabilities:**

**Note for students with disabilities:** The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, 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 accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

## Weekly Reading Schedule

<i>Week</i>	<i>Course Topic And Associated Readings</i>
1	<p>Overview Of Economics Of Education History Of Economics Of Education</p> <p><u>Course Readings Booklet</u></p> <p>Theoretical Concepts In The Economics of Education: Brewer, Hentschke, Eide.</p> <p><u>Supplementary Readings</u></p> <p>Mazer, R. (2004). Public Schools Democracy and Historical Trends. <i>Education Canada</i>. pp. 4-8.</p>
2	<p>Human Capital Theory Returns To Education Costs And Benefits Of Education</p> <p><u>Course Readings Booklet</u></p> <p>Human Capital: Eide, Showalter.</p> <p>Returns To Education In Developing Countries: Patrinos, Psacharopoulos.</p> <p>The External Benefits Of Education: McMahon.</p> <p><u>Supplementary Readings</u></p> <p>Lemieux, T. (2003). The “Mincer Equation” Thirty Years after Schooling, Experience, and Earnings. Chapter 11. <i>Centre For Labour Economics. University of California, Berkley. Working Paper No. 62.</i> - found on the InterNet</p> <p>Sweetland, S. R. (1996). Human Capital Theory: Foundations of a Field of Inquiry. <i>Review of Educational Research</i>. Vol. 66. No. 3. pp. 341-359.</p>
3	<p>Production Of Education Education Production Function Analysis</p> <p><u>Course Readings Booklet</u></p> <p>Education Production Functions: Concepts: Harris.</p> <p>Education Production Functions: Evidence From Developing Countries: Glewwe, Lambert.</p> <p><u>Supplementary Readings</u></p> <p>Hanushek, E. (2007). Education Production Functions. <i>In Steven N. Durlauf and Lawrence E. Blume (eds.), The New Palgrave Dictionary of Economics.</i> - found on the InterNet</p>



<b><i>Week</i></b>	<b><i>Course Topic And Associated Readings</i></b>
	Jansen, J. (1995). Effective Schools? <i>Comparative Education</i> . Vol. 31. No. 2. Special No. (17): Educational Reconstruction and Transformation in South Africa. pp. 181-200.
4	<p>Inside The Classroom Outside The Classroom</p> <p><u><i>Course Readings Booklet</i></u></p> <p>Teacher Quality In Education Production: Pelayo, Brewer.</p> <p>Family Environment In The Production Of Schooling: Rothstein.</p> <p>Parental Socioeconomic Status, Child Health, And Human Capital: Currie, Goodman.</p> <p><u><i>Supplementary Readings</i></u></p> <p>Bascia, N., Fredua-Kwarteng, E. (2008). <i>Class Size Reduction: What The Literature Suggest About What Works</i>. Canadian Education Association.</p> <ul style="list-style-type: none"> <li>- found on the InterNet</li> <li>- NOTE: article for week 4 presentation</li> </ul> <p>Mora, T., Oreopoulos, P. (2011). Peer effects on high school aspirations: Evidence from a sample of close and not-so-close friends. <i>Economics of Education Review</i> 30. pp. 575-581.</p>
5	<p>Education Research Approaches Econometric Challenges Cost Benefit Analysis</p> <p><u><i>Course Readings Booklet</i></u></p> <p>Empirical Research Methods In The Economics of Education: McEwan.</p> <p>Cost-Benefit Analysis And Cost-Effectiveness Analysis: Levin, Belfield.</p> <p><u><i>Supplementary Readings</i></u></p> <p>Dearden, L., Machin, S., Vignoles, A. (2009). Economics of education research: a review and future prospects. <i>Oxford Review of Education</i>. Vol. 35. No. 5. pp. 617-632.</p> <p>Hummel-Rossi, B., Ashdown, J. (2002). The State of Cost-Benefit Analysis and Cost-Effectiveness Analysis in Education. <i>Review of Educational Research</i>. Vol. 72. No. 1. pp. 1-30.</p> <ul style="list-style-type: none"> <li>- NOTE: article for week 5 presentation</li> </ul>
6	<p>Costing Of Education Financing Of Education</p> <p><u><i>Course Readings Booklet</i></u></p>

<b><i>Week</i></b>	<b><i>Course Topic And Associated Readings</i></b>
	<p>School Finance: An Overview: Rice, Monk, Zhang.</p> <p><u><i>Supplementary Readings</i></u></p> <p>Hanushek. E. (1981). Throwing Money at Schools. <i>Journal of Policy Analysis and Management</i>. Vol. 1. No. 1. pp. 19-41.</p> <p>Holmlund, H., McNally, S., Viarengo, M. (2010). Does money matter for schools? <i>Economics of Education Review</i> 29. pp. 1154-1164.  - NOTE: article for week 6 presentation</p>
7	<p>Education And Economic Growth  Education Planning</p> <p><u><i>Course Readings Booklet</i></u></p> <p>Education And Economic Growth: Hanushek, Wofmann.</p> <p><u><i>Supplementary Readings</i></u></p> <p>Resnik. J. (2006). International Organizations, the “Education-Economic Growth” Black Box, and the Developing World Education Culture. <i>Comparative Education Review</i>. Vol. 50. No. 2. pp. 173-195.  - NOTE: article for week 7 presentation</p> <p>Zarifa, D., Walters, D. (2008). Revisiting Canada’s Brain Drain: Evidence from the 2000 Cohort of Canadian University Graduates. <i>Canadian Public Policy</i>. Vol. 34. No. 3. pp. 305-319.</p>
8	<p>Teacher Markets  Teacher Supply  Teacher Incentive</p> <p><u><i>Course Readings Booklet</i></u></p> <p>Teacher Labor Markets: An Overview: Lankford, Wyckoff.</p> <p>Teachers in Developing Countries: Rogers, Vegas.</p> <p><u><i>Supplementary Readings</i></u></p> <p>Strunk, K., Grissom, J. (2010). Do Strong Unions Shape District Policy? Collective Bargaining, Teacher Contract Restrictiveness, and the Political Power of Teacher’s Unions. <i>Educational Evaluation and Policy Analysis</i>. Vol. 32. No. 3. pp. 389-406.</p> <p>Woessmann. L. (2011). Cross-country evidence on teacher performance pay. <i>Economics of Education Review</i> 30. pp. 404-418.  - NOTE: article for week 8 presentation</p>
9	<p>State In Education  Education Privatisation  Education Accountability</p>

<b>Week</b>	<b>Course Topic And Associated Readings</b>
	<p><u>Course Readings Booklet</u></p> <p>The Economic Role Of The State In Education: Plank, Davis.</p> <p>The Economics Of School Accountability: Figlio, Ladd.</p> <p><u>Supplementary Readings</u></p> <p>Arreman, I. E., Holm, A-S. (2011). Privatisation of public education? The emergence of independent upper secondary schools in Sweden. <i>Journal of Education Policy</i>. Vol. 26. No. 2. pp. 225-243.</p> <p>Oakes, J. (1989). What Educational Indicators? The Case for Assessing the School Context. <i>Educational Evaluation and Policy Analysis</i>. Vol. 11. No. 2. pp. 181-199.</p> <p>- NOTE: article for week 9 presentation</p>
10	<p>Education In Developing Nations Education, Poverty and Inequality</p> <p><u>Course Readings Booklet</u> Education And Inequality: Blanden, Machin.</p> <p><u>Supplementary Readings</u></p> <p>Campaign 2000 (2010). 2010 Report card on child and family poverty in Ontario. <a href="http://www.campaign2000.ca/">http://www.campaign2000.ca/</a>.</p> <p>Hanushek, E. (1995). Interpreting Research on Schooling in Developing Countries. <i>The World Bank Research Observer</i>. Vol. 10. No. 2. pp. 227-246.</p> <p>- NOTE: article for week 10 presentation</p>
11	<p>Early Childhood Education Discrimination Education Tensions</p> <p><u>Course Readings Booklet</u></p> <p>The Economics Of Early Childhood Interventions: Nores.</p> <p>Race Earnings Differentials: Carnoy.</p> <p><u>Supplementary Readings</u></p> <p>Nores, M., Belfield, C., Barnett, W. S., Schweinhart, L. (2005). Updating the Economic Impacts of the High/School Perry Preschool Program. <i>Educational Evaluation and Policy Analysis</i>. Vol. 27. No. 3. pp. 245-261.</p> <p>Parks, F., Kennedy, J. (2007). The Impact of Race, Physical Attractiveness, and Gender on Education Majors and Teachers Perceptions of Student Competence. <i>Journal of Black Studies</i>. Vol. 37. No. 6. pp. 936-943.</p>

<b><i>Week</i></b>	<b><i>Course Topic And Associated Readings</i></b>
12	<p>Technology In Education Future Trends And Concluding Thoughts</p> <p><u><i>Course Readings Booklet</i></u></p> <p>None</p> <p><u><i>Supplementary Readings</i></u></p> <p>Hinostroza, J. E., Labbe, C., Brun, M. Matamala, C. (2011). Teaching and learning activities in Chilean classrooms: Is ICT making a difference? <i>Economics of Education Review</i> 57. pp. 1358-1367.</p> <p>Raizen, S. A. (1997). Making Way for Technology Education. <i>Journal of Science Education and Technology</i>. Vol. 6. No. 1. pp. 59-70.</p>