# Natural Resources and Environmental Economics ECONOMICS 3374A-001 Department of Economics Western University

September 2023

#### **General Information:**

**Instructor:** Meghdad Rahimian

Office: SSC 4021B

Email: mrahim4@uwo.ca
Delivery mode: In-Person

Class Times: Monday, 6:30-9:30 pm

Classroom: SSC 3010

Course start day: Monday, Sep 11, 2023 Last day of the course: Monday, Dec 4, 2023

**Office hours:** Fridays 2:00 pm – 4:00 pm (via Zoom)

Office hours will be held online using Zoom and the following link

https://westernuniversity.zoom.us/j/93012962062

**Undergraduate inquiries:** 519-661-3507or SSC Room 4075 or econugrd@uwo.ca

#### **Registration:**

You are responsible for ensuring you are registered for the correct courses. If you are not registered on this course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at <a href="https://student.uwo.ca">https://student.uwo.ca</a>. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

#### **Prerequisite Note:**

The prerequisites for this course are **Economics 2221A/B** and **Economics 2261A/B**. The antirequisite for this course is **Economics 2172A/B**.

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken any anti-requisite courses. Lack of prerequisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record but will ensure that spaces become available for students who require the course in question for graduation.

#### **Course Objectives:**

This course aims to develop the "standard" economist's approach to environmental problems and natural resource use, including the property-rights basis of environmental problems,

efficient pollution control, benefit estimation procedures, and incentive-based regulation. However, this course also incorporates broader topics, notably the ethical foundation of environmental economics, a focus on ecological economics and strong sustainability, a safety-based approach to controlling pollution, and the promotion of "clean technology."

# **Course Learning Outcomes:**

By the end of the course, students will be able to identify, describe, and analyze different economic approaches to answer the fundamental questions in environmental economics:

- How much pollution (or resource degradation) is too much?
- Is government up to do the job?
- How can we do better?

#### **Textbook and Course Materials:**

Economics and the Environment, 9th Edition, by Eban S. Goodstein and Stephen Polasky. <a href="https://bookstore.uwo.ca/textbooksearch?campus=UWO&term=W2022A&courses%5B0%5D=001\_UW/ECO3374A">https://bookstore.uwo.ca/textbooksearch?campus=UWO&term=W2022A&courses%5B0%5D=001\_UW/ECO3374A</a>

#### **Assessments and Grading:**

- You will have a midterm exam (20%) which covers the first five chapters. The midterm exam will be on **Monday**, **October 16**, at **6:30-7:30** pm (the date is tentative and subject to changes).
- You will have a final exam (30%), which covers all chapters.
- Group Project (40%) (three 10 minutes video presentations and final project report)
- Weekly class one-page reflection (10%).

#### **Notes on Assessment and Grading:**

- All dates and times are tentative. Note that if classes move to an online status, the assessment dates, times, and choices may change.
- The deadline for submitting each chapter assignment is on Sunday of the same week by midnight. Late submissions are not accepted.
- I will announce the format, time, and date of the final exam later in the semester.
- During exams, students are forbidden to communicate with anyone other than an examination proctor or the instructor. Also, students are not allowed to use books, notes, or other aids.
- Late assessments without documentation and timely notification will receive a mark of zero.
- Late assessments with documentation from Academic Counseling and timely notification to the me must be submitted within 24 hours of submission.
- Missed exams without approved, documented official accommodation from Academic Counseling will be given a mark of zero.

<sup>\*</sup> The percentages in the parenthesis show the weight of that task in the final grade of this course.

- If there has been approved, documented official accommodation, the weight of a missed midterm will be transferred to final exam.
- If there has been approved, documented official accommodation, a make-up final exam will be offered.
- If a make-up assessment is missed, the student will receive zero.
- According to University policy, once a student starts an exam, it is no longer permitted to request accommodation.

# **Group presentations and project:**

- In this course, you will have the unique opportunity to engage in team-based, problem-solving exercise. Forming groups of three, your objective will be to collaboratively address a real-world sustainability issue.
- Registration is necessary and must be completed by the end of the second week of the course. You are requested to list your name in one of the designated groups.
- During our inaugural session, you will be introduced to the United Nations Sustainable Development Goals (UN SDGs). Your group's task will revolve around employing these goals to address a real-world problem with the support of the Morrissette Institute for Entrepreneurship, Ivey.
- the Morrissette Institute for Entrepreneurship will facilitate two workshops during our course. These will enable you to define your selected problem more clearly, and to approach its resolution from an entrepreneurial perspective.
- You are to identify and research a real-world issue, with a preference for local problems, which aligns with the UN SDGs. Your group should brainstorm diverse practical solutions for your chosen problem. As the course progresses, your group will be responsible for conducting three presentations: the first will introduce one or two SDG(s) of choice from your perspective, the second will clarify your chosen problem and the second will detail your proposed solutions.
- Your final task will be to submit a comprehensive business plan, outlining how your proposed solution can be practically implemented and managed. This will involve both strategic and operational considerations, allowing you to understand the intricacies of launching a successful initiative.

#### **Topics Covered (tentative):**

We will cover 12 chapters of the textbook:

# Chapter 1 – Four questions about climate change (introduction) What are UN Sustainable Development Goals?

#### Chapter 2 – Ethics and Economics

This chapter provides an introductory discussion of welfare economics. The point is to get students to direct their thinking about environmental ethics to a utilitarian framework. Whether growth in material consumption, independent of fairness and rights, necessarily leads to an overall increase in *social* welfare depends on the form specified for the social welfare function. Three different social welfare functions are presented: efficient ("distribution blind"), sustainable (no increase in consumption today at the expense of future generations), and safe (heavy weights on victim's welfare).

# Chapter 3 - Pollution and Resource Degradation as Externalities

In this chapter, we first define pollution as an externality. We then analyze two different aspects of a communal property that contribute to the degradation of the environment. First, the free access problem explains why individuals would knowingly damage a resource upon which they depend. Second, the public goods problem explains, in part, why people cannot "buy" a clean environment, either by suing polluters or purchasing wilderness. The main point is that free-market forces do not provide the right incentives to ensure that adequate care is taken to protect our environment from an efficiency or safety perspective.

# Chapter 4 - The Efficiency Standard

This chapter begins by defining Pareto efficiency and shows that the net monetary benefits to society are maximized at an efficient outcome. We then employ the notion of marginal costs and marginal benefits associated with pollution reduction to illustrate how one might identify an efficient level of pollution. (The problems involved in measuring benefits and costs will be explored in Chapters 5 & 6). Students are introduced to the Coase theorem and the polluter pays principle. Finally, the distinction between total and marginal benefits and costs is made clear.

# Chapter 5 - Measuring the benefits of environmental protection.

This chapter discusses the methods that economists use for valuing the non-market benefits of environmental quality. Concepts of use, option, and existence value are introduced; consumer surplus from increased consumption is presented as the theoretically appropriate measure of value. The differences between WTA and WTP measures are discussed, as are risk assessment procedures and risk perceptions. Finally, contingent valuation, travel cost, and hedonic regression methods are presented, with value-of-life estimates being used to illustrate the latter. The focus of the chapter is on the real problems faced in measuring non-market benefits.

# Chapter 6 - Measuring the cost of environmental protection

This chapter explores the costs of environmental protection. Engineering cost data is much easier to obtain than non-market benefit information. Engineering cost estimates are only as good as their predictions regarding, for example, compliance and control technologies. However, engineering estimates do not generally incorporate opportunity costs. We explore the impact on the true cost of environmental protection when we consider negative or positive productivity impacts and employment effects. The chapter also contains a discussion of general equilibrium impacts, focusing on the double-dividend debate.

# Chapter 7 - The safety standard

The safety standard is defined in terms of cancer risks greater than 1 in ten thousand; for other health and ecosystem risks, safety is less well-defined. Safety is defended ethically on the grounds of personal liberty. By arguing, as will be done in more detail in Chapter 11, because the welfare derived from consumption is relative rather than absolute, foregone consumption buys very little happiness. Safety standards are criticized as inefficient, cost-ineffective, and regressive. (This is a good place to make a clear distinction between efficiency and cost-effectiveness.) The chapter ends with a comparison of efficiency and safety standards via the siting of noxious facilities and trade in hazardous waste.

#### Chapter 8 – The sustainability standard

This chapter begins with a broad overview, contrasting "neoclassical" and "ecological" approaches to sustainability. Neoclassical economists share two underlying assumptions: (1) created capital can generally substitute for natural capital in production, and (2) technological progress will uncover these substitutes as natural capital becomes scarce. These two assumptions imply that we are not "running out of resources." Ecological disagreement, and thus the stage is set.

#### Chapter 9 - Measuring Sustainability

This chapter begins with the historical roots of sustainability's ecological and economic view and continues with sustainability's neoclassical economic view. The basic theory resembles Malthus: geometric population growth bumping up against limited agricultural potential. However, as illustrated in the modern debates around Limits to Growth and now Planetary Boundaries, ecological now stress problems arise from both population and consumption pressures on a much broader spectrum of natural capital—from freshwater to planetary temperature to biodiversity. By contrast, Neoclassical economists seek to evaluate weak sustainability by direct measurement at the national level, either of NNW or IW. Both of these measures require a means to calculate the depreciation of natural capital.

#### Chapter 10 – Natural resources and ecosystem services

This chapter provides a straightforward exposition of two models: Hotelling and Optimal Growth. These models provide a logical way to talk about the "Peak Oil" (and peak everything) debate, and as we frame it, a peak oil surprise would reflect a failure of the Hotelling Model's predictions. The optimal growth model yields, for high discount rates and slow growth, a prediction of "optimal extinction" for profit-maximizers: emphasize to students that this is a prediction of a model and is not endorsed as an outcome by economists.

#### Chapter 11 - Is more really better?

This chapter examines the Easterlin Paradox: according to survey data, increases in wealth by little happiness. Two explanations are discussed. First, satisfaction from most consumption may depend upon relative rather than absolute consumption levels. Second, positional goods may be increasingly important in the economy, leading either to rationing through high prices or congestion. A social welfare function incorporating consumption externalities is illustrated.

### Chapter 15 - Incentive-Based Regulation: Theory

This chapter focuses on the theoretical arguments in favor of shifting to an IB system of pollution regulation. The economic advantages are two-fold: first, a reduction in the short-run costs of complying with regulations, and second, and more importantly, greater incentives for long-run cost savings and pollution reduction through technological progress. The mechanics of pollution taxes and marketable permit systems are laid out, and their advantages and disadvantages relative to one another are also discussed.

# Communication and Tips on How to Be Successful in this Class:

- I strongly recommend attending the classes.
- Ask questions and participate in the discussions in class.
- It is advisable to set regular weekly times to review your textbook and lecture notes and study the material.

- Connect with others and actively engage with your group members.
- Office hours are for you! If you have any questions or concerns, these hours are the best way to reach me.
- Emails will be monitored regularly; students will receive a response in 12-72 hours.

# **Technical Requirements:**

You will need to have access to at least one of the following: a laptop, a tablet, a smartphone, or a computer. In addition, an internet connection is needed to access lectures and other course materials on Owl and communicate with the instructor. For technical support, see the OWL Help page or contact Western Technology Services Helpdesk (https://wts.uwo.ca/aboutwts/contact.html). Google Chrome or Mozilla Firefox are the preferred browsers for OWL; update your browser frequently.

# Professionalism, Privacy, and Copyright:

- Students are expected to follow the <u>Student Code of Conduct.</u>
- All lectures and course materials, including slides, presentations, outlines, and similar
  materials, are protected by copyright. Students may take notes and make copies of
  course materials for their own educational purposes.
- Students may not record lectures, reproduce (or allow others to reproduce), post, or distribute lecture notes, assessments, or any other course materials publicly and/or for commercial purposes without the written consent of the instructor.
- Recordings (audio or video) are not permitted without the instructor's explicit permission. Permitted recordings may not be distributed or shared.
- Students will be expected to take an academic integrity pledge before some assessments.

# Please Note Department & University Policies for Fall 2023

The University expects all students to take responsibility for their own Academic Programs. Students should also check their registration to ensure they are enrolled in the correct courses.

- 1. **Guidelines, policies, and your academic rights and responsibilities** are posted online in the current Western Academic Calendar at: <a href="http://westerncalendar.uwo.ca">http://westerncalendar.uwo.ca</a>. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated policies and procedures.
- 2. Students must familiarize themselves with the "Rules of Conduct for Examinations" <a href="http://www.uwo.ca/univsec/pdf/academic\_policies/exam/administration.pdf">http://www.uwo.ca/univsec/pdf/academic\_policies/exam/administration.pdf</a>.
- 3. Cheating as an academic offence: Students are responsible for understanding what it means to "cheat." The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other Economics courses or programs. The University may impose further penalties such as suspension or expulsion.

4. **Plagiarism:** Students must write their essays and assignments in their own words. When taking an idea/passage from another author, it must be acknowledged with quotation marks where appropriate and referenced with footnotes or citations. Plagiarism is an academic offence (see Scholastic Discipline for Undergraduate Students in the Western Calendar at <a href="http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\_20">http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\_20</a>).

Western University uses software to check for plagiarism and students may be required to electronically submit their work. Those found guilty will be penalized as noted in point 3.

- 5. It is a Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students must submit assignments to the instructor.
- 6. **Appeals**: University policies and procedures for appealing a mark can be found in the Student Academic Appeals section in the current Western Academic Calendar at: <a href="http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\_14">http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\_14</a>. **Please note the relevant deadlines.**

Department of Economics procedures for appealing a mark can be found here: <a href="https://economics.uwo.ca/undergraduate/program\_counselling/responsibilities\_policies.html#appeals">https://economics.uwo.ca/undergraduate/program\_counselling/responsibilities\_policies.html#appeals</a>. The Department will not consider an appeal unless an attempt has been made to settle the matter with the instructor first. Students who remain dissatisfied with the outcome may proceed to submit an appeal to <a href="econugrd@uwo.ca">econugrd@uwo.ca</a>. Please follow the instructions and use the appeal form shown in the above link.

- 7. **Systematic adjustments of a class grade distribution** (either up or down) can occur in Economics courses. The fact that grades have been adjusted is **not** grounds for an appeal.
- 8. Note the following add and drop deadlines:
  - Deadline to <u>ADD OR DROP</u> a first term full or half course: **Fri, Sept 15, 2023**
  - Deadline to WITHDRAW from a first term full or half course: Mon, Nov 13, 2023

#### **Policy Regarding Makeup Tests and Final Examinations**

Faculty of Social Science policy states that oversleeping or misreading an exam schedule is NOT grounds for a makeup. This rule applies to midterm and final exams in the Department of Economics.

### **Policies Regarding Academic Accommodation**

Academic accommodation will not be granted automatically on request. Students must
demonstrate by documentation that there are compelling medical or compassionate
grounds before academic accommodation will be considered. The Faculty of Social
Science's policies on academic accommodation are found at
<a href="https://counselling.ssc.uwo.ca/procedures/academic consideration.html">https://counselling.ssc.uwo.ca/procedures/academic consideration.html</a>

- Accommodation for Students with Disabilities: Students with disabilities or accessibility challenges should work with Accessible Education (formerly SSD, see <a href="http://academicsupport.uwo.ca/accessible\_education/index.html">http://academicsupport.uwo.ca/accessible\_education/index.html</a>), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: Academic Accommodation for Students with Disabilities.
- Rewriting Exams and Retroactive Reweighting are NOT Permitted: Students who
  proceed to write a test or examination must be prepared to accept the mark. Rewriting
  tests or examinations, or retroactive reweighting of marks, is not permitted. Students
  must also book travel arrangements AFTER final exam dates have been posted as they
  must not conflict with test or final exams.
- Unless medically incapable of doing so, students must notify their instructor prior to the test date or at least within **24 hours** when requesting a makeup exam. Failure to follow this procedure may result in denial of academic accommodation and a grade of zero. Students should also set up an appointment as soon as possible to meet with their instructor. If the instructor is not available, send an email message to the instructor, copying the Undergraduate Coordinator at <a href="mailto:econugrd@uwo.ca">econugrd@uwo.ca</a>. Notifying instructors of a missed exam does not automatically entitle students to a makeup.
- For medical illnesses, students may consult Student Health Services and request a Student Medical Certificate from the physician. If assessed by an off-campus doctor, students must obtain a certificate from his/her office at the time of the visit/assessment.Student Medical Certificate (SMC) is available here:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/medicalform.pdf

- **Documentation for Accommodation:** Individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds or for other reasons.
- Western University policy on Consideration for Student Absence is available here: https://counselling.ssc.uwo.ca/procedures/probation\_rtw/appeals.html
- **Religious Accommodation:** Students should consult the University's list of recognized religious holidays and should give <u>reasonable notice in writing</u>, <u>prior to the holiday</u>, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the <u>Western Multicultural Calendar</u>.

**Policy Regarding Class Attendance and Engagement:** If the instructor deems a student's attendance or engagement in the class to be unsatisfactory, that student may be prohibited from writing the final examination. Examples of unsatisfactory class engagement include frequent absences from an in-person or synchronous online class, lack of assignment submissions, and inadequate use of online course materials. Instructors who intend to make use of this policy will notify the student in advance.

**Statement on Mental Health and Support Services:** Students under emotional/mental distress should visit <a href="http://uwo.ca/health/mental wellbeing/">http://uwo.ca/health/mental wellbeing/</a> for more information and a complete list of resources on how to obtain help.

**Statement on Remote Proctoring:** While Western intends to hold most classes, mid-terms and finals in-person, the London-Middlesex Health unity may require western to teach in a remote format. If this occurs, all assessments will be done remotely and may involve the use of remote proctoring software (i.e., Proctorio, ProctorTrack). Instructors will provide information on the details should the need arise.

#### **Guidelines for Essay Courses**

# Essay Courses<sup>1</sup>

An essay course is a course in which the cumulative amount of written work, excluding written work in examinations, is at least 2,500 words (for a half course).

To pass an essay course, students must exhibit a minimal level of competence in essay writing in addition to comprehension of the course content.

# **English Language Proficiency for Assignment of Grades**<sup>2</sup>

Written work that demonstrates a lack of English proficiency will be failed or, at the discretion of the instructor, returned to the student for revision to an acceptable level.

To foster competence in the English language, *all instructors will take English proficiency into account when marking*. This policy applies to all courses, not only essay courses.

# **Recycling of Assignments**

Students are prohibited from handing in the same paper for two different courses. Doing so is considered a scholastic offence and will be subjected to academic penalties.

#### **Plagiarism**

Plagiarism is defined as "the act or an instance of copying or stealing another's words or ideas and attributing them as one's own."<sup>3</sup>

Plagiarism applies to ALL assignments including essays, reports, diagrams, statistical tables, and computer projects. Examples of plagiarism include:<sup>4</sup>

- Submitting someone else's work as your own
- Buying a paper from a mill, website or other source and submitting it as your own
- Copying sentences, phrases, paragraphs, or ideas from someone else's work, published or unpublished, without citing them
- Replacing selected words from a passage from someone else's work and using it as your own without citing them
- Copying multimedia (graphics, audio, video, internet streams), computer programs, music compositions, graphs, or charts from someone else's work without citing them
- Piecing together phrases and ideas from a variety of sources without citing them
- Building on someone else's ideas or phrases without citing them

Plagiarism is a serious scholastic offence. Possible consequences of plagiarism include a mark of 0% on the assignment, a mark of 0% for the course, and expulsion from the university. Instructors may require students to submit written work electronically to <a href="http://www.turnitin.com">http://www.turnitin.com</a>. This is a service that assists instructors in detecting plagiarism.

<sup>&</sup>lt;sup>1</sup>From the UWO Academic Handbook, See

http://www.uwo.ca/univsec/pdf/academic\_policies/registration\_progression\_grad/coursenumbering.pdf

<sup>&</sup>lt;sup>2</sup> From the UWO Academic Handbook. See <a href="http://www.uwo.ca/univsec/pdf/academic\_policies/exam/english.pdf">http://www.uwo.ca/univsec/pdf/academic\_policies/exam/english.pdf</a>

<sup>&</sup>lt;sup>3</sup>Excerpted from HC Black, *Black's Law Dictionary*, West Publishing Co., 1999, 7th ed., p. 1170.

Adapted from the San José State University Plagiarism Tutorial <a href="https://libguides.sjsu.edu/plagiarism">https://libguides.sjsu.edu/plagiarism</a>

Students seeking further guidance on avoiding plagiarism should consult their instructor. Claiming ignorance is not an acceptable excuse.

The key to avoiding plagiarism is to correctly cite reference sources.

### **Referencing and Citation Guidelines**

The Economics Department has adopted the citation guidelines used in *The Chicago Manual of Style*, 16<sup>th</sup> edition. Chicago: University of Chicago Press, 2010. You can find an online version on the Western Libraries website. Go to <a href="https://www.lib.uwo.ca/essayhelp/index.html">https://www.lib.uwo.ca/essayhelp/index.html</a> and click on 'style guides'. For off-campus access, use the *OffCampus Access* sign-in on the Library's homepage.

Economics papers often use the in-text **author-date** style of citations and references. Details and examples of this style are shown in chapter 15 of the *Chicago Manual of Style Online*. See also the handy "Chicago-Style Citation Quick Guide" under Tools on the homepage.

In the body of an essay, in-text citations list the last names of the authors of the piece that are referenced, the year of publication, and, where relevant, page numbers. In-text citations refer the reader to a complete list of bibliographic references at the end of the essay. Papers that cite multiple works by the same author(s) with the same publication year should add a lower case letter after the date in both the in-text citation and References (e.g., 1993a and 1993b). In doing so, the in-text citation points the reader to the relevant work.

#### Examples of in-text citations:

Diamond (1981, 1982) and Mortensen (1982a, 1982b) find these externalities can cause an inefficient level of search activity...

The "new view of unemployment" which emerged during the 1970s emphasized the importance of turnover in the labour force and the brief duration of many employments spells (Hall 1970, 1972; Perry 1972; Marston 1976).

The primary objectives of the LMAS are "1. To provide measures of the dynamic...the Labour Force Survey" (Statistics Canada 1990, 5).

The list of references at the end of the essay should be titled References or Works Cited. It should provide complete bibliographic information about each source cited. In addition, students should also provide adequate referencing of any data sources. This can be done in a data appendix following the text of the paper and before the References.

Examples of the format and content of references can be found here: https://www.lib.uwo.ca/files/styleguides/ChicagoStyleAuthorDate.pdf

Writing an Economics Essay: Starting Points

To start a written assignment, review your professor's instructions. Read published work written by economists, which will give you examples of the structure and content of economics writing. Examples are readings in the course outline, journals, working papers, etc.

Two helpful sources that give information about how to write for economics are:

McCloskey, Dierdre N. 2000. *Economical Writing*, 2<sup>nd</sup> edition. Prospect Heights, Illinois: Waveland Press.

Greenlaw, Steven A. 2006. *Doing Economics: A Guide to Understanding and Doing Economic Research*. New York: Houghton Mifflin Co.

# Writing an Economics Essay: Resources

The **Resources Link** on Western University's Department of Economics website (<a href="http://economics.uwo.ca/resources/index.html">http://economics.uwo.ca/resources/index.html</a>) provides a link to a list of sources for published and unpublished economic papers, articles, books, theses, government publications, data, etc. Western Libraries has a very useful economics resource page <a href="https://guides.lib.uwo.ca/economics">https://guides.lib.uwo.ca/economics</a>.

**DB Weldon Library** has a collection of bibliographies, indexes, handbooks, and periodicals in economics. Library holdings, the online library catalogue, and other resources are available electronically from the Western Libraries Homepage <a href="http://www.lib.uwo.ca/">http://www.lib.uwo.ca/</a>. These can be accessed off-campus with the OffCampus Proxy Server on the Library main page.

Students are encouraged to take a library orientation tour to learn about where sources of information are located both physically and online. Consult library staff for questions

*The New Palgrave Dictionary of Economics* is the most comprehensive dictionary of economics in existence today. It is available online through the library catalogue, or in print in the Weldon's Reference section (call # HB 61.N49 2008 v. 1-8).

**EconLit** (Economic Literature) is an electronic bibliography of literature from 1969 to the present. It covers journals, collected articles, books, book reviews, dissertations, and working papers. It also provides citations, selected abstracts, and links to Western's full-text resources. Students can also print records by downloading marked records to a text file, sending marked records by email, or exporting them to a citation manager such as **Zotaro**. For a list of citation software, see <a href="https://www.lib.uwo.ca/essayhelp/citationmanagementsoftware.html">https://www.lib.uwo.ca/essayhelp/citationmanagementsoftware.html</a>.

*CANSIM* (Canadian Socio-economic Information Management System) is Statistics Canada's database of time series data covering a variety of economic aspects of Canadian society. Access the database by a Title Search on the Western Library's Catalogue, or from the Library's list of Databases under "Research Tools" on the Library's homepage.

**Western Undergraduate Economics Review (WUER)** 

The Department of Economics encourages students to consider submitting their essays to the Western Undergraduate Economics Review, a journal published annually by the Department

that showcases student work in economics. For further information, please visit <a href="http://economics.uwo.ca/undergraduate/undergraduate economics review.html">http://economics.uwo.ca/undergraduate/undergraduate economics review.html</a>.

**Essay Prize in Economics** 

Two prizes may be awarded at the end of the academic year. One prize is for a student registered in a 2100 level course, and one is for a student registered in a 2200 or higher level course. Each prize is valued at \$500.

Students can only win the Essay Prize in Economics once. Economics 4400E is not eligible for this prize as it has its own essay award.

Instructors will nominate student essays for the prize. The essay should be submitted to the Undergraduate Coordinator for consideration by the Essay Prize Committee, which will decide the winner. The Essay Prize Committee will consist of the Undergraduate Program Director, WUER Faculty Advisor and one other faculty member. The decision of the Committee is final and cannot be appeal.

Papers will be judged on content, originality, use of references, spelling, and grammar.

The grade given to the paper will not influence the decision of the Essay Prize Committee as all comments by the original marker will be removed.

The deadlines for instructor submissions are:

Fall courses: January 1<sup>st</sup> Winter courses: May 1<sup>st</sup>

The winner of the essay prize is encouraged to submit their paper to the Western Undergraduate Economics Review. Other appropriate papers may also be submitted.