

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Global Environmental Issues

CODE NO. : NET 102 **SEMESTER:** 4

PROGRAM: Natural Environment Technologist

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DATE: Jan. 2011 **PREVIOUSLY DATED:**
July 2010

APPROVED: B.Punch Jan. 2011

	CHAIR	DATE
TOTAL CREDITS:	2	
PREREQUISITE(S):		
HOURS/WEEK:	2	

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***For additional information, please contact Brian Punch, Chair, Environment and Design
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I. COURSE DESCRIPTION:

Global Environmental Issues will give students a background on the effects of population growth and distribution on land for food production, water quality/quantity, energy and fuel use and demand, biodiversity, etc., in relation to global sustainability. It will include discussion on the basic principles of system stress, the earth's carrying capacity, our reliance on fossil fuels, the future of energy and how we can best meet our escalating demand for energy in a more efficient and sustainable manner. The course will discuss the need for a shift in our thinking and our culture regarding our consumptive habits involving fossil fuels and the need for more stringent conservation efforts in the transportation and construction and building (residential, institutional and industrial) sectors, where 70% of energy consumption occurs and conservation efforts and applications are sorely needed. The course will then evolve into a comprehensive discussion on climate change and its major drivers and impacts and what is required for adaptation and remediation. We will conclude by identifying steps that people can take to insure a transition to a more sustainable lifestyle that can build community resilience and self reliance, stimulate business and economic development, and help mitigate environmental damage. Remedial actions that will be discussed will range from simple to complex, and from benign to perilous.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Understand the key issues affecting the earth and the threats associated with the present trends in resource consumption.

Potential Elements of the Performance:

- Understand the cause and effect relationships of the major contributing factors leading to the #1 Environmental Issue affecting the planet.
- Describe world energy production and consumption and Canada's role including tar sands and offshore oil.
- Introduction to alternative energy sources and their potential impacts, good and bad.

2. Introduce students to the history, present and future of population growth and its effect on the Earth.

Potential Elements of the Performance:

- Identify and describe how population growth and food

production are major contributors to increased CO₂ production.

- Discuss human impacts on large terrestrial and marine landscapes for food production, including fish stocks, land conversion, pollution.
 - Relate how these transformations contribute to failing agricultural production, impacts on fish stocks from warming/acidification, and describe how oil production, water quality/quantity and food production are interrelated.
 - Assess what factors need attention sooner than later and what action is required.
3. Identify the main drivers of climate change and what actions can and need to be taken to address it.

Potential Elements of the Performance:

- Identify and describe the main contributors and effects of climate change such as increased CO₂ concentrations, pollution, tropical forest deforestation and land use changes.
 - Outline how climate change is affecting water supply, warming and acidification of the oceans.
 - Learn what and how various alternative energy sources have the potential to reduce the continuing increase in CO₂ concentrations and their relative cost benefit and potential for contributing to a brighter future.
4. Describe the major efforts available to support the mediation of climate change, including policy and legislation, education and guidelines, economic development, grassroots movements, scientific rigor, etc., and be able to assess what course of action stands the best chance of success.

Potential Elements of the Performance:

- Outline the major policy initiatives, like the Kyoto and Copenhagen accords and describe how they are progressing.
 - Identify different legislated or volunteer approaches to limiting carbon emissions regionally/nationally and internationally and understand the pros and cons. (cap and trade, carbon tax, conservation measures, etc.)
 - Be aware of key technologies and/or processes in use, or being considered to 'save the planet', including renewable energy alternatives, geo-engineering, nano-technology, etc.
5. Demonstrate an understanding of what needs to be done to rectify what some would say is an 'already too late scenario'.

Potential Elements of the Performance:

- Students will learn how a variety of misinformation, greed and politics are contributing to a relatively slow response in addressing climate change.
- Demonstrate an understanding of what can and needs to be done by individuals, corporations and countries in dealing with climate change.
- Understand the major components, timelines and players in the climate change war.
- Learn what's being done by the scientific community and the world at large to address climate change.
- Understand and employ some of the planning tools available such as Community/ Regional Green Maps.

III. TOPICS:

1. How Global Population Growth Trends are affecting our ability to sustain the Earth.
2. Energy production and consumption and it's affect on the Global Environment.
3. Land Use Changes and biodiversity.
4. Impacts on Aquatic environments, food chains and diversity.
5. Climate Change, history, present status, future predictions and remedial actions.
6. The need to shift from globalization to localization.
7. Transition from a culture of consumption to one of conservation and sustainability.

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

All text and other written resources will be provided to students or will be available on line.

V. EVALUATION PROCESS/GRADING SYSTEM:

7 Assignments @ 5% each:	35%
Mid term Test	15%
Final Report	25%
Final Test	<u>25%</u>
Total	100%

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

VI. SPECIAL NOTES:

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”, (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of March will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default.

Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.