# INTRODUCTION TO ENVIRONMENTAL SCIENCE 120 COURSE OUTLINE - FALL 2022

**TEACHER:** A. Hallihan



## **COURSE DESCRIPTION:**

The objective of this course is for students to develop the knowledge base and skills for investigating and analyzing environmental issues and for communicating their knowledge and analysis to others.

## **DISTRIBUTION OF TOPICS:**

- Unit 1: An Overview of Environmental Science
  - The Issues
  - Population Growth and Resource Limitations
  - Researching Current Environmental Issues
- Unit 2: Sustainable Development
  - Ecology
  - Environmental Awareness
  - Sustainable Ecosystems and Communities
- Unit 3: Investigating Environmental Issues
  - CLASS THEME: Fisheries...Miramichi Watershed
  - INDIVIDUAL THEME: One of the following... Agriculture, Forests, Fresh Water, Energy Resources, Climate Change or Water/Air Pollution

## **EVALUATIONS:**

Unit 1	20 %
Unit 2	20 %
Unit 3	10 %
Eco-Challenge Project	30 %
Exam	20 %

## **ECO-CHALLENGE PROJECT:**

Completion of a student project is a requirement for this course. There are two options for completion...

A: Research Paper

**B:** Eco-Point Activities With A Target Of 400 Points

Presentation On Your Topic

Eco-Point Activities With A Target Of 200 Points

See *Appendix A and B* for more information.

Those students who choose **option A**...here are some details on the two of the components:

# Research Paper

- Independently research an environmental issue.
- Summarize and analyze the results of your research and communicate the results through a written paper.
- 4-5 pages in length using MLA Referencing (12 Font, Times New Roman, Double Spaced).

# IMPORTANT DATE: December 19th: Research Paper is due

#### Collaborative Presentation

- Develop a cohesive and engaging presentation for the class...can be done individually or with a partner with a similar topic.
  - Visuals should be included (graphs, pictures, videos, etc.).
  - An activity must be included.
  - Presentations will be peer reviewed.
  - Duration will be 5 minutes if done individually or 8 minutes if done with a partner.

## **IMPORTANT DATES:**

- January 10th: Presentation order will be announced
- January 16<sup>th</sup> 18<sup>th</sup>: Presentations

Both options require completion of EcoPoints...here are some details on the activities:

## **EcoPoint Activities**

- Complete a choice of optional activities that demonstrate the following four components:
  - o Personal appreciation of the environment
  - Stewardship through action
  - Advocacy for the environment
  - o Engagement of others in environmental inquiry
- <u>At least one</u> activity from each category must be attempted. An inventory will be recorded as this will be done throughout the course and I will sign off on the inventory as they are completed.
- Option A has a target of 200 EcoPoints and option B has a target of 400 EcoPoints.

NOTE: You must identify which option you are choosing by October 28th!

• Inventories will be collected on the following dates:

October 28<sup>th</sup>...marking for achieving at least half of your target points. January 18<sup>th</sup>...marking for achieving all of your target points.

## **ECO- CHALLENGE PROJECT**

Weight **Components** 1. Research Paper 40 % of overall mark Collaborative Presentation 30 % of overall mark 3. Eco-Point Activities 30 % of the overall mark **Personal Appreciation Component** Read an approved book and share with class 10 [+5 if reviewed on the blog] Write a poem or song. (maximum 2) 5 [+5 if recorded and +5 if published] Create a piece of artwork (drawing, sculpting, painting, etc.). (max. 1) 10 [+? depending on effort] Organize an outdoor activity for at least 5 classmates out of class. 10 [+? depending on scope of activity] 5 / hr [+5/hr if presenting] Volunteer at an environmental event. Create a scrapbook of current ES issues, clippings, summaries, etc. 15 [+? depending on effort] Share an appropriate article with the class. 5 [+5 if reviewed on the blog] Invite a guest speaker to class. Prep class before and debrief class after. 15 [+5 if done with Skype] Create a bulletin board display 10 [+5 if school-wide] Build a model using recycled materials. 10 [+? depending on effort] Create an video documenting your environmental experience 30 [prior discussed with teacher] 5 [+5 if chosen to be published] Create a logo Submit pictures from an event you attended/participated 5 [+? If given in different format] Other (student suggestions) negotiable **Stewardship Through Action Component** 5 Clean the fish tank 5 Watering the plants Organize a community workshop. 50 [prior discussed with teacher] Attend a lecture or seminar out of class and report to class. 15 [+5 if reviewed on the blog] Work at an environmental job, document your experience and share with class. 30 [prior discussed with teacher] Head up an anti-litter campaign and organize a highway clean-up day . 30 [prior discussed with teacher] Create an environmental awareness video 30 [prior discussed with teacher] Organize a school art show featuring a category for recycled art. 30 [prior discussed with teacher] Write, produce and create your own nature interlude (on video). 20 [+? depending on effort] An interlude should be 100% human-free and generally is put to music Create and market an earth-friendly product (bags, soaps, stationary, etc.). 50 [prior discussed with teacher] Beautification project (e.g. create a community or senior's home garden) 75 [prior discussed with teacher] Design and maintain for the duration of the term, a web-based environmental 75 [prior discussed with teacher] newsletter that is a compilation of current environmental issues, interviews. news clips photos, articles, etc. Other (student suggestions) negotiable **Advocacy for the Environment Component** Write a letter to \_\_\_\_\_\_ advocating change (unlimited) 5 [+5 if you receive a reply] Sign up for a newsletter from an environmental group 5 [must pass in confirmation e-mail] Interview a local "environmentalist" who you consider a role model 10 [+10 if done in video format] Complete an appropriate career profile 10 [+5 if reviewed on the blog] Organize a special awareness/promotion day at school 30 [prior discussed with teacher] Create a video commercial promoting "green" behavior 30 [prior discussed with teacher] Other (student suggestions) negotiable **Engagement of Others in Environmental Inquiry Component** Organize a lab activity for the class 20 [+? depending on effort] Design a game for the class to review a unit or to introduce a new topic 20 [+? depending on effort] (Board game, jeopardy, etc.) Bulletin board display 10 [+5 if school-wide] Create a video documentation of a lab or field trip 30 [prior discussed with teacher] Design a lesson and teach to an elementary class 75 [prior discussed with teacher] Other (student suggestions) negotiable