

INTRODUCTION TO ENVIRONMENTAL SCIENCE 120

COURSE OUTLINE - WINTER 2016



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 (25 hours)**
 - The Issues
 - Population Growth and Resource Limitations
 - Researching Current Environmental Issues

- **Unit 2: Sustainable Development (30 hours)**
 - Ecology
 - Environmental Awareness
 - Sustainable Ecosystems and Communities

- **Unit 3: Investigating Environmental Issues (35 hours)**
 - CLASS THEME: Fisheries...Miramichi Watershed
 - INDIVIDUAL THEME: One of the following...
Agriculture, Forests, Fresh Water, Energy Resources, Climate Change or Water/Air Pollution

EVALUATIONS:

Tests / Quizzes / Assignments / Labs / Journals	50 %
Eco-Challenge Project	25 %
Exam	25 %

ECO-CHALLENGE PROJECT:

Completion of a student project is a requirement for this course. The three components of the project are...

- 1) Research Paper
- 2) Collaborative Presentation
- 3) Eco-Point Activities

See *Appendix A - D* for more information.

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Part I: 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.

IMPORTANT DATE:

May 20th: Research Paper is due

Part II: Collaborative Presentation

- Team up with others researching related topics to develop a cohesive and engaging presentation for the class.
 - Visuals should be included (graphs, pictures, videos, etc.).
 - An activity must be included.
 - Presentations will be peer reviewed.
 - Duration will be 20 to 25 minutes.

IMPORTANT DATES:

- **May 25th: Presentations groups will be announced**
- **June 1st: Presentations will begin**

Part III: Eco-Point Activities

- Complete a choice of optional activities that demonstrate the following four components:
 - Personal appreciation of the environment
 - Stewardship through action
 - Advocacy for the environment
 - Engagement of others in environmental inquiry
- At least one activity from each category must be attempted. An inventory/portfolio will be recorded as this will be done throughout the course.
- A maximum of 300 eco-points may be accumulated. Inventories will be collected on the following dates:
 - 100 points – March 23rd**
 - 100 points – May 4th**
 - 100 points – June 1st**

Mandatory Components

1. Research Paper
2. Collaborative Presentation
3. Eco-Point Activities

Weight

- 40 % of overall mark
 30 % of overall mark
 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]
- Volunteer at an environmental event. 5 / hr [+5/hr if presenting]
- 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]
- Create a logo 5 [+5 if chosen to be published]
- Submit pictures from an event you attended/participated 5 [+? If given in different format]
- Other (student suggestions) negotiable

Stewardship Through Action Component

- Clean the fish tank 5
- 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).
An interlude should be 100% human-free and generally is put to music 20 [+? depending on effort]
- 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 newsletter that is a compilation of current environmental issues, interviews, news clips photos, articles, etc. 75 [prior discussed with teacher]
- 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 (Board game, jeopardy, etc.) 20 [+? depending on effort]
- Bulletin board display 10 [+5 if school-wide]
- Create a video documentation of a lab or field trip 30 [prior discussed with teacher]
- Create a lesson plan with an activity 50 [+? depending on effort]
- Design a lesson and teach to an elementary class 75 [prior discussed with teacher]
- Other (student suggestions) negotiable