

# 2009/2010 Earth Systems Syllabus

*"From the Footprint perspective, sustainability requires living within the regenerative and absorptive capacity of the planet."*

*Ecological Footprint of Nations*

Year-long Course

Science Elective

Room N214

2<sup>nd</sup> and 5<sup>th</sup> period

Instructor: Mr. Evavold [email](#) or 218-879-4673 #214

Office Hours: 7am - 8:15am, 10:07am - 10:58am, 11:54am - 12:24pm, 1:14pm - 1:54pm

## **I. Why Earth Systems:**

This is an elective course that helps meet graduation requirements in science and meets MN Academic Standards in Life/Earth Science. There could not be a better time to learn about how the world works and how humans interact with it.

## **II. Goals and Objectives:**

### ***Goals***

The main goal of Earth Systems is to inspire a deeper understanding and appreciation of the earth and how it works and how humans are important actors in the biosphere. Emphasis throughout course includes scientific method, inquiry, recognition that scientific knowledge is not static, historical perspectives, and applications of technology.

### ***Specific Learning Objectives:***

By the end of this course, students will have reached new understandings in the following areas:

- I. Gaia ("all things are connected")
- II. River Studies I (ecology of a stream)
- III. Thermodynamics (energy flow through ecosystems)
- IV. Environmental Systems (earth systems and cycles)
- V. Forest Ecology (changing landscapes)
- VI. Northwoods Ecoregion (understanding and exploring our backyard)
- VII. Human Population (population and human impact over time)
- VIII. Energy Resources (carbon economy, etc.)
- IX. Climate Change (looking at the evidence)
- X. Freshwater Resources (midwest's liquid gold)
- XI. River Studies II (presenting our data)
- XII. Footprints (analyzing our own lifestyle impacts)

### III. Format and Procedures:

**Quizzes and Tests:** Expect about one **quiz per week**. Quizzes are generally **10-15 points**. The quizzes given are most often **matching** but the occasional reading quiz may contain short answer questions. Quizzes may be online at times. **Quizzes represent 20%** of your quarter grade.

**Tests account for 30%** of your quarter grade. They will consist of multiple-choice questions, matching and essay. Tests occur approximately **every 2-3 weeks**. There are **no re-takes** on tests or quizzes. You will be given at least 1 week notice of an upcoming test. If you miss a test it must be for good reason and excused and will need to be made up before school at a designated time. If you miss the make-up time, you get a "0" for that test. **If you have an unexcused absence on the day of a test/quiz/assignment you will receive a "0" for that assignment/test, etc.**

**Participation: accounts for 10%** of your quarter grade. Every two weeks a participation score will be assigned based on active participation in class, completing homework on time, appropriate behavior, treating property with respect, etc. Gross violations of any of these will result in a "0" for that scoring period.

**Cumulative Folder:** A cumulative folder of your own tests and quizzes will be maintained for your reference and mine. Each quiz and test will be placed directly into your folder and accumulated there throughout the semester. You will have access to this folder with permission and prior to the semester final exam.

**Final Exam:** There will be a cumulative semester final exam that will consist of 50 multiple-choice questions from the semester. All questions will be derived from previous unit tests. The semester final will represent 15% of your semester grade.

### IV. My Assumptions

- Students will strive toward success
- Students will be prepared for class
- Students will honor deadlines
- Students will seek help and guidance when needed

### V. Course Requirements:

1. Attendance: according to Esko Attendance Policy
2. Readings:
  - (a) Required text: *Environment - the science behind the stories* ©2006 by Pearson/Benjamin Cummins (available in hard-cover and online versions)
  - (b) Additional readings: may include handouts in class, case studies, online resources, periodicals
3. Assignments: being thorough, timely, and thoughtful
4. Participation: being prepared, participating fully, honoring others right to learn

### VI. Grading Procedures:

**Quarter Grade** Determination

30% Tests(essay)

40% Labs/Homework

20% Quizzes(vocabulary/matching)

10% Participation

**Semester Grade** determined using the following weights:

Q1(42.5%), Q2(42.5%), Final(15%)

Success is likely if student engages themselves fully and utilizes in-class and out-of-class resources.

## **VII. Academic Integrity**

Each student in this class is expected to abide by the Honesty and Integrity expectations outlined in the student handbook. Any work submitted by a student in this course for credit will be the student's own work. There will be some occasions where collaboration is allowed.

You are encouraged to study together and to discuss information and concepts covered in and outside of class with other students. You can give "consulting" help to or receive "consulting" help from other students. In fact, that is encouraged.

However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an email, an email attachment file, a diskette, or a hard copy.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment and may involve additional disciplinary action.

During tests and quizzes, you must do your own work. Talking or discussion is not permitted, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the tests and quizzes will result in failure of the test or quiz and may lead to failure of the course and disciplinary action.

## **VIII. Accommodations for students with special needs**

Please let me know if you have a special academic need that might not be addressed elsewhere. I will make accommodations where appropriate to assist students in achieving academic success in this class.

## **IX. Semester Outline with Units and Unit Study Guides can be found at:**

[www.mreclassroom.com](http://www.mreclassroom.com)

## **X. Additional Resources for Earth Systems**

Resources/activities to include: Moodle, labs, lecture, case studies, readings, podcasts, articles, web resources, class discussion, and handouts.

[www.mreclassroom.com/moodle/](http://www.mreclassroom.com/moodle/)