

**Three Rivers Community College**  
**BIO K180: Principles of Environmental Science, ENV K101: Environmental Studies**  
**Spring 2015**  
**Tentative Course Syllabus**

**Course Instructor: Bruce Gregoire**

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**Office Hours: Tuesday, 5:30 – 6:25 pm, Room E206 or by appointment.**

**Meeting Day/Time: Tuesday, 6:30 – 9:15 pm, Room E206**

**Required Text:**

Environmental Science, Toward a Sustainable Future, 12<sup>th</sup> Ed. Authors: Richard T Wright and Dorothy F Boorse.

**Additional Suggested Reading:**

*A Sand County Almanac: And Sketches Here and There* by Aldo Leopold

*Garbology: Our Dirty Love Affair with Trash* by Edward Humes

*Nature's Services: Societal Dependence on Natural Ecosystems*, edited by Gretchen C. Daily

*Silent Spring* by Rachel Carson

Course Description:

This basic course in environmental studies introduces ecological principles and a global perspective on environmental problems such as deforestation, global climate change, droughts, floods, soil erosion, loss of biodiversity, and pollutants. It describes, in detail, the study of the biological and physical aspects of the environment and related issues, highlighting sound science, sustainability, and stewardship. Additionally, this course emphasizes a global and cross-cultural perspective on issues pertaining to environmental science, including discussions on human population expansion, environmental racism, socioeconomic stratification, global stewardship, social modernization, and establishing a framework for a sustainable future.

Course Outcomes:

The student will:

- Develop an understanding of their own personal impact on the environment
- Develop a global perspective of environmental issues
- Evaluate the relationship between human population growth and other environmental problems
- Demonstrate an understanding of the political, social, and economic factors in environmental management
- Describe the structure and function of ecosystem components
- Evaluate solutions to human population problems

Course Goals:

Students will have a greater understanding of how interconnected the environment is and how humans are connected to the environment. Students will learn to recognize that different environments do not exist in isolation, that actions by nature and humans can have positive and negative consequences. Students will explore their own actions and beliefs about the environment and environmental issues.

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Organization:

This course is a lecture/in-class participation course. The assigned reading will form the basis for in-class discussions. In-class attendance/participation and assignments will be a significant portion of the overall grade.

Week	Date	Topic		Chapter Reading/Assignment
1	Jan 27 <sup>th</sup>	Introduction, Class overview, Syllabus 1) Science and the Environment		Read Syllabus Read for next week : Ch 1, 2, & 3 <b>HW1: Ecological Footprint</b>
2	Feb 3 <sup>th</sup>	3)Basic Needs of Living Things “Inconvenient Truth” video	<b>-Quiz 1</b>	Read for next week : Ch 4 & 5 <b>HW2: Water Utilization</b>
3	Feb 10 <sup>th</sup>	4) Populations and Communities 5) Ecosystems: Energy, Patterns, and Disturbance	<b>HW1: Ecological Footprint assignment due</b>	Read for next week : Ch 6 & 7
4	Feb 17 <sup>th</sup>	- Current Issue Presentations 6) Wild Species: Biodiversity and Protection 7) Use and Restoration of Ecosystems	<b>- Quiz 2</b>	Read for next week : Ch 8 & 9
5	Feb 24 <sup>th</sup>	- Current Issue Presentations 8) The Human Population 9) Population and Development		Read for next week : Ch 11
6	Mar 3 <sup>th</sup>	- Current Issue Presentations 11) Soil: the Foundation for Land Ecosystems -“Dirt-The Movie” - Current Issue	<b>HW2: Water Utilization assignment due</b>	Read for next week : Ch 10 & 20 <b>HW3: Transportation Use and Expense</b>
7	Mar 10 <sup>th</sup>	Presentations 10) Water: Hydrologic Cycle and Human Use 20) Water Pollution and Prevention	<b>- Quiz 3</b>	Read for next class : Ch 12 & 13
8	Mar 17 <sup>th</sup>	<b>**NO CLASS - SPRING BREAK**</b>	<b>Mar 22<sup>nd</sup> – World Water Day</b>	
9	Mar 24 <sup>th</sup>	- Current Issue Presentations 12) Production and Distribution of Food 13) Pests and Pest Control		Read for next Class: Ch 14, 15, 16, & 19
10	Mar 31 <sup>st</sup>	- Current Issue Presentations 14,15&16) Energy and Energy Production 19) Atmospheric Pollution	<b>- Quiz 4</b>	Read for next week Ch 21 & 22
11	Apr 7 <sup>th</sup>	- Current Issue Presentations Waste: The 102 Ton Legacy	<b>HW3: Transportation Use and Expense assignment due</b>	<b>HW4: Tracking Trash</b>
12	Apr 14 <sup>th</sup>	- Current Issue Presentations Waste: Nurdles - Plastic and the Oceans		
13	Apr 21 <sup>nd</sup>	- Current Issue Presentations Waste: The Four R’s	<b>Apr 22<sup>nd</sup> - Earth Day</b>	Read for next week : Ch 17 & 18
14	Apr 28 <sup>th</sup>	- Current Issue Presentations 17) Environmental Hazards and Human Health 18) Global Climate Change	<b>- Quiz 5</b>	Read for next week : Ch 23

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15	May 5 <sup>th</sup>	- Current Issue Presentations 23) Sustainable Communities - “A Convenient Truth” Video	<b>HW4: Tracking Trash assignment due</b>	<b>Exam Review</b>
16	May 12 <sup>th</sup>	<b>Final Exam - Cumulative</b>		

Grading Plan:

Quizzes (5):	20% (Note 1)
Current Issue Presentation:	10%
Assignments (4):	35%
In-class activities	10%
Final Cumulative Exam:	25%
Total	100%

**Note 1. There will be no make-up quizzes without prior approval.**

Course Grading:

Final letter grades for the course generally mean the following percentage of points:

Letter grade	Percentage of points	Percentage range
A	95	93.3 - 96.7
A-	91.65	90.0 – 93.2
B+	88.3	86.7 – 89.9
B	85	83.3 – 86.6
B-	81.65	80.0 – 83.2
C+	78.3	76.7 – 79.9
C	75	73.3 – 76.6
C-	71.65	70.0 – 73.2
D+	68.3	66.7 – 69.9
D	65	63.3 – 66.6
D-	61.65	60.0 – 63.2
F	<60.0	< 60.0

Quizzes (20%): In order to be prepared for class discussions, students must read the material prior to coming to class. A quiz may given on the assigned chapter reading(s) for that week. The lowest quiz grade will be dropped. **There will be no make-up quizzes without prior approval.**

Current Issue in Environmental Science Presentation (10%):

Each student will present a brief (5-10 minute) presentation to the class on a current issue in environmental science from a published news/journal article. The instructor must approve the article and no two students can present on the same article. A minimum one-page summary of the article (7.5%) and a copy of the article(2.5%) must to be turned in. In the summary, you will state why this issue is important and what the potential impact is on the environment.

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Assignments (35%):

During the semester, students will examine and record their local impact on the environment. This will be accomplished through four take home exercises: 1) Ecological Footprint, 2) Water Utilization, 3) Transportation Use and Expense, and 4) Trash Tracking.

1) The Ecological Footprint (5%) will be completed online at at <http://www.earthday.org/footprint-calculator>. In order to get credit for the assignment you must turn in a printout of your ecological footprint (with your name on it).

2) Water Utilization (10%): Using the provided spreadsheet, you will keep track of your water consumption on a daily basis for a two-week period. This will include the total time that the water is running when you bathe (this includes the time that the water is on and you are not in the shower/bath). In addition to the spreadsheet (5%), a minimum one-page summary of your water utilization and ways to reduce your water consumption. Extrapolate your water consumption for your whole household based on your utilization (5%).

3) Transportation Use and Expense (5 %): Using the provided spreadsheet, keep track of expenses associated with your transportation use for 30 days. In addition to the spreadsheet (2%), a minimum one-page summary of your transportation expenses. Include in you summary how you could further reduce you transportation expenses (3%).

4) Trash Tracking Audit (15%): Using the provided spreadsheet, you will keep track of your waste generation for your household for a one-week period and summarize your results. In addition to the spreadsheet (5%), a minimum two-page summary of your trash generation and disposal and ways that you could lessen your impact on the environment and the solid waste stream.

In-class activities (10%): During the semester, in-class activities and discussions will take place. These activities are designed to foster your ability to think critically on matters relating to the world we live in and the potential impact on the environment.

Final Exam (25%): There will be a final exam in this course. The exam will test you on the material covered in class and the required reading. The final exam is cumulative.

Extra credit (2.5%): Attend a local planning and zoning meeting, environmental, or conservation committee meeting. Provide a brief one-page summary of the importance of public participation at the local governmental level. What did you think of this experience? Support your opinion with general examples observed at the meeting.

**Course Policies**

Class Etiquette:

The use of cell phones and personal handheld electronic devices during class detracts from the learning environment for both yourself and your classmates. Please place all cell phones on silent during the class. If you must answer a call, please leave the classroom quietly to do so. During

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exams and quizzes, please turn in your exam/quiz prior to leaving, as it will be considered complete.

*Late/Missed Work:* All assignments are due by the date posted in the syllabus, unless otherwise specified. Worked turned in 1-week late will receive a 10% grade reduction. After this time the assignment will not be accepted and the student will receive a zero.

*Attendance:* Missing a day of lecture without prior arrangements will result in a zero for any missed quizzes. However, the student will be solely responsible for learning any missed material and handing in missed assignments. My contact information is provided at the top of this syllabus. If you inform me well in advance of an absence, I will be happy to make appropriate accommodations.

*Make-ups:* I need adequate notice to schedule make-ups: at least two weeks for normal life situations and at least one day for sudden emergencies. In case of a dire emergency, contact me as soon as you can through email. I reserve the right to ask for documentation of an emergency-related absence, and to deny a make-up in the absence of a clear life-or-death situation.

*Withdrawal:* The last day to withdrawal from this course is May 11<sup>th</sup>, 2015.

*Academic Conduct:* It is expected that each student will turn in only his or her own work. Violations of the Student Code are taken seriously. This includes copying or sharing answering on tests or individual assignments, plagiarism, or having someone other than yourself do your work. Depending on the act, a student could receive an F grade on the test/assignment, an F grade for the course, or could be suspended or expelled.

Academic Dishonesty:

Student Code of Conduct: All students should be aware of the guidelines for the Student Code ([http://www.trcc.comnet.edu/Div\\_StudentServices/StudentPrograms/PDF/TRCC-StudentHandbook.pdf](http://www.trcc.comnet.edu/Div_StudentServices/StudentPrograms/PDF/TRCC-StudentHandbook.pdf)) College Policies: Student Conduct and Discipline Policy

**The penalty for cheating on a quiz or exam will be a zero on the affected assignment.**

**Counseling and Student Development Services at TRCC**

If you have a disability that may affect your progress in this course, please meet with a Disability Service Provider (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

Available Support Services:

If you need additional assistance for this course, tutors, study skill workshops, and other course assistance can be arranged by contacting the Tutoring and Academic Success Centers, Room C117 (860-892-5713). If you have not yet used the library to obtain information and search scientific articles, you may contact the Library for more training and information (860-885-2346).

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Religious Holidays:

**Sec. 10a-50. (Formerly Sec. 10-334g). Absence of students due to religious beliefs.** No person shall be expelled from or refused admission as a student to an institution of higher education for the reason that he is unable, because the tenets of his religion forbid secular activity on a particular day or days or at a particular time of day, to attend classes or to participate in any examination, study or work requirements on such particular day or days or at such time of day. Any student in an institution of higher education who is unable, because of such reason, to attend classes on a particular day or days or at a particular time of day shall be excused from any examination or any study or work assignments on such particular day or days or at such particular time of day. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school because of such reason an equivalent opportunity to make up any examination, study or work requirements which he has missed because of such absence on any particular day or days or at any particular time of day. No special fees of any kind shall be charged to the student for making available to such student such equivalent opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section. For the purposes of this section, "institution of higher education" shall mean any of the schools comprising the state system of higher education, as defined in section 10a-1. (P.A. 75-367, S. 1.)

myCommNet Alert: is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather.

All students are encouraged to sign up for myCommNet Alert. A tutorial is available on the Educational Technology and Distance Learning Students page of the web site. This link should be shared with students.

[http://www.trcc.commnet.edu/div\\_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html](http://www.trcc.commnet.edu/div_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html)

## **KEYS TO SUCCESS**

Readings:

To ensure success in the classroom and to take active participation in your learning, each assigned reading should be read prior to the week assigned. Reading the material ahead of time will allow you to gain a familiarity with the concepts prior to learning about the concept in class. This will increase your understanding and allow you to participate by asking questions on the material that you find complex or confusing.

Attendance:

Although attendance is not mandatory, attendance is necessary to succeed in this course.

## **Digication**

As a student, you will maintain an online learning portfolio using a TRCC designed template. Through this electronic tool, you can see your own growth in college-wide learning. It may even help you to find the major that is a match to you. You can keep this Digication account after graduation, too. A Three Rivers General Education Assessment Team will select random works

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and review them so that we can improve the college experience for all. Your name will not be attached to any of the assessment work; it is private. This tool will also be a “place” where you can connect your learning from the classroom, school, and life. Sometimes when you look at all of the work you have done and think about it, you learn something else. In Digication, you will be able to make other portfolios, too. It’s like a file cabinet with the ability to have multiple but separate files. What is exciting about the electronic tool is when you look inside you will see you are developing in new ways! Look at your class outline to see what assignments to post into the TRCC Template; you may post your own choices, too. Have fun in learning!