



NORTHWEST FLORIDA STATE COLLEGE

EVR1001C Environmental Science 4 Semester Hours (Fall 2016)

- Professor: Charles Trotman
- Office Hours: Wednesday 8:30 PM to 9:00 PM
- Phone: (850) 892-3349 (H); (850) 333-6750 ©
- Email: trotmanc@nwfsc.edu
- Final Exam: December 14
- Web Page: <http://www.nwfsc.edu/faculty/profiles/trotman-charles/index.cfm>
- Reference Number: 11524
- Campus/Room: CNC 154
- Class Days: W
- Class Times: 6:30 – 8:45
- Electronic Resources:

EVR 1001C - Environmental Science

A study of the physical and biological environment and man's ecology with emphasis upon contemporary biological problems.

Course Prerequisite

None

Materials

Textbook (Cunningham & Cunningham: Environmental Science: A Global Concern, 13th ed.

Lab Notebook

a loose-leaf, 3-ring binder

a pencil and a pen (black or blue ink)

a scientific calculator

Grading Procedures

Tests

Tests will be given at the completion of a study unit or, if the unit is large, after completion of each half of the unit. A test will cover from one to three chapters. Tests, with the exception of the final, will be open-notes.

Homework

Most homework will be reading assigned from your textbook, or from a supplement. Other homework may consist of research, writing assignments, online activities, or analysis activities associated with a class exercise. Each such assignment will be weighted appropriate to the work required.

Laboratory

Labs are extremely important. They may be physical (hands-on) or virtual. **For EVERY lab done, a formal report (see attached guidelines) must be submitted.** For individual labs, each student must submit a report. For group labs, one report per group is sufficient. You will usually receive the lab handouts in advance. Take this opportunity to familiarize yourself with the process. Remember, labs constitute 30% of your grade.

Final Exam

The final exam will consist of 50 multiple choice items drawn from the chapter tests, quizzes, and laboratory assignments. **No notes or other material will be permitted on the final.**

Grading

Tests	50%
Lab	30%
Final	20%

Incomplete Grades

An incomplete grade (“I”) may be awarded when the student is unable to finish the required work because of unforeseen extenuating circumstances such as illness or TDY assignment. To receive an “I” grade, the student must have successfully completed a significant portion of the required coursework and be able to finish the remaining work without attending class. An “I” grade will automatically convert to a grade of “F” if the student does not complete the remainder of the coursework by the established deadline.

Make-up Work

Missed labs will not be made up. Other work may be made up at the instructor’s discretion and if the work was missed for an approved reason (illness, TDY, etc.).

Class Attendance

Students who stop attending class or are not able to pass the course due to attendance expectations stated in the syllabus may receive a failing grade of “FA.” An “FA” grade is a failing grade in GPA calculations and may impact the receipt of federal aid in subsequent courses. Students traveling for college approved activities will not be penalized academically but will be responsible for missed work.

Email – Email is the official communication medium of the College. Please check your email regularly for any class and College notifications.

Minimum Technical Skills and Specialized Technology Utilized

This course is a “hybrid” course. There will be both online and face-to-face components. In addition to baseline word processing skills and sending/receiving email with attachments, students will be expected to search the internet and upload/download files. In addition, students may need one or more of the following plug-ins:

Adobe Acrobat Reader: ([Adobe](#))

PowerPoint Viewer: ([Microsoft](#))

Windows Media Player: ([Microsoft](#))

QuickTime Player: ([Apple](#))

Adobe Flash Player: ([Adobe](#))

Desire 2 Learn - Like all NWF State College classes, this class uses Desire 2 Learn (D2L), a platform for online learning. You can access this class’s D2L site at [Desire 2 Learn](#), or through RaiderNet. You will find the class syllabus and other resources.

Cell Phone/Electronic Devices

Cell phones, pagers, and other such electronic devices must not distract from learning. Courtesy to the professor and other students requires that phones be on vibrate or silent mode during class. No student should initiate conversations, including texts, during class activities. Use of electronic communication devices during examinations or other graded activities may constitute grounds for disciplinary action; such devices must be completely out of sight during exams or other assessments. Where emergency or employment situations *require* access to electronic communication services, arrangements may be made *in advance* with the instructor.

Emergency College Closure

In the event of unusual or extraordinary circumstances, the schedule, requirements, and procedures in this course are subject to change. If the college closes for inclement weather or other emergency, any exams, presentations, or assignments previously scheduled during the closure period will automatically be rescheduled for the first regular class meeting held once the college re-opens. If changes to graded activities are required, students will not be penalized as a result of the adjustments, but will be responsible for meeting revised deadlines and course requirements.

Children in the Classroom

As a courtesy to other students and the learning process, students may not bring children with them to class sessions. Health and safety concerns prohibit children from accompanying adult students in any lab, shop, office, or classroom or other college facility where potential hazards exist. If a child-related emergency means you must miss class, contact the instructor as soon as possible to determine your options. (The full “Children on Campus” policy statement appears in the College Catalog.)

Student Rights, Responsibilities, and Academic Integrity

Students are responsible for adherence to all college policies and procedures, including those related to academic freedom, cheating, classroom conduct, computer/network/e-mail use and other items included in the *Northwest Florida State College Catalog and Student Handbook*.

Students should be familiar with the rights and responsibilities detailed in the current *Northwest Florida State College Catalog and Student Handbook*. Plagiarism, cheating, or any other form of academic dishonesty is a serious breach of student responsibilities and may trigger consequences which range from a failing grade to formal disciplinary action.

EVR1001C Fall 2016 Topic Schedule (Subject to adjustments)

UNIT	MAJOR TOPIC(S)	TEXT CHAPTER(S)	SUPPLEMENTARY MATERIAL	LAB
1. Introduction/ Scientific Foundations	1. Understanding Our Environment 2. Principles of Science and Systems 3. Matter, Energy, and Life <i>Unit 1 Test</i>	1, 2, 3	“The Tragedy of the Commons” by Garrett Hardin	Calculating Ecological Footprint
2. Evolution, Communities, Ecosystems	1. Evolution, Biological Communities, and Species Interaction 2. Biomes: Global Patterns of Life 3. Population Ecology <i>Unit 2</i>	4, 5, 6	Everglades Videos Case Study: Darwin’s Finches Case Study: Zombie Attack	Carbon Cycle
3. Population Ecology	1. Population Ecology 2. Human Populations 3. Environmental Health and Toxicology 4. Food and Hunger 5. Farming: Conventional and Sustainable Practices <i>Unit 3 Test</i>	6, 7, 8, 9, 10		
4. Preserving Biodiversity	1. Preserving Species 2. Preserving Landscapes 3. Restoration Ecology	11, 12, 13		
5. Water	1. Water Use and Management	17	Hidden Rivers of Florida The River Returns Case Study: Mono Lake Case Study: Lake Nyos	Water Sample Analysis
5. Energy	1. Nonrenewable Energy 2. Renewable Energy 3. Climate Change <i>Unit 4 Test</i>	15, 19, 20		Biodiesel Production
6. Pollution	1. Environmental Health and Toxicology 2. Air Pollution 3. Water Pollution 4. Solid, Toxic, and Hazardous Waste	8, 16, 18, 21		
7. Sustainability	1. Urbanization and Sustainable Cities 2. Ecological Economics 3. Environmental Policy, Law, and Planning	22, 23, 24		Wastewater Treatment Simulation
	FINAL EXAM December 14, 2016			

* Online Exercise

EVR1001C Lab Reports

The following is an outline you should follow when completing a lab report. Understand that not every lab will have the same components. Ask me if you have any questions.

Pre-lab: I will expect that for your pre-lab you will read your lab handout (if provided before the lab) ahead of time so that you have a good understanding of what will be expected of you on the day of the lab and you can prepare any necessary tables. I can tell who is prepared and who is not prepared!

Set up/ Clean up: If not instructed otherwise, you will be responsible for setting up AND cleaning up any of the experiments we do in class as well as participating in field activities (we'll get to that later). If you leave your lab station a mess, this will result in a 10% reduction on your lab report for that activity. Don't lose points for laziness!

Writing the lab report: You will be required to write extensive lab reports for our lab activities. This is when you have a chance to show me what you have gained from that activity and how you can apply it to what we have learned in the classroom. Follow the format below.

Title page: include your name, date, section, lab partner(s) and title of the lab

Abstract: The abstract is a brief and very concise summary of your lab activity. It should be one paragraph and include a sentence about the purpose of the lab, 1-2 sentences each about your hypothesis/question/objectives, methods, conclusion of what you found. This section is one of the most important sections of the lab. Many times when browsing through scientific articles, readers will only quickly read the abstract to get a complete idea of what that paper is about.

Introduction: This section should not be too lengthy (1-2 paragraphs). You are to give a brief background about the topic of the lab. For example, when we do our species diversity lab, you will want to define what that is and talk about our study site. At the end of this section you will state your hypothesis and objectives for the lab.

Methods: Here you show me that you understand our experimental methods. This section should be short; giving an overview of what methods we used to perform our study.

Results: This is the section where you present your data in tables, charts, graphs, drawings, and any calculations. You will also need to describe your data using the tables/graphs that you produce. (Tables are always labeled and graphs are labeled as "Figure ____." This section will vary in length.

Discussion: This is one of the most important sections of the full length report. The lab report is tied together in this section. Here you will interpret why you do/don't see trends in your data. How do the results relate to your original hypothesis? What are some problems that could have gone wrong with the lab? What are some future tests that you could do to build on this lab? This section should be the longest section of your lab report.

Conclusion: This should be one paragraph of a brief summary of the lab in general and what you learned.

Works Cited: Be sure to use citations whenever you have used outside sources. You will most likely need to use them in your introduction and discussion sections. Follow MLA guidelines.

- Your lab report must be typed in 12 point Times New Roman Font with 1 in. margins. Your report should be double-spaced.
- Lab reports one day late will receive half credit. If late more than one day – no credit (unless absent, then we can talk).
- Citations – if you take from resources you must cite them! I should see citations in your introduction and discussion section! You will receive a zero for plagiarism. See me if you have questions about this.

Helpful Hints

- Number your pages.
- Use an active or passive voice in first or third person – be consistent throughout your lab.
- Decimal fractions of numbers less than one should always have a zero to the left of the decimal: e.g. 0.94 not .94
- Never begin a sentence with a symbol or a numeral. Any number that begins a sentence should be spelled out.
- Except for the rule above, data (especially in results) should be given as Arabic numbers (1,2, 3.). In a written section numbers one through ten should be spelled out while numbers exceeding ten should be in Arabic form. Ex. “Five drops were added.” “We used 15 plants”
- Abbreviations for units of measurement are not followed by a period unless at the end of a sentence.

EVR 1001C Lab Report Rubric

Teacher Name: **Mr. Trotman**

Student Name(s): _____

CATEGORY	4	3	2	1	Score
Components of the report	All required elements are present and additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.	All required elements are present.	One required element is missing, but additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.	Several required elements are missing.	
Appearance/Organization	Lab report is typed and uses headings and subheadings to visually organize the material.	Lab report is neatly handwritten and uses headings and subheadings to visually organize the material.	Lab report is neatly written or typed, but formatting does not help visually organize the material.	Lab report is handwritten and looks sloppy with cross-outs, multiple erasures and/or tears and creases.	
Question/Purpose	The purpose of the lab or the question to be answered during the lab is clearly identified and stated.	The purpose of the lab or the question to be answered during the lab is identified, but is stated in a somewhat unclear manner.	The purpose of the lab or the question to be answered during the lab is partially identified, and is stated in a somewhat unclear manner.	The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant.	
Spelling, Punctuation and Grammar	One or fewer errors in spelling, punctuation and grammar in the report.	Two or three errors in spelling, punctuation and grammar in the report.	Four errors in spelling, punctuation and grammar in the report.	More than 4 errors in spelling, punctuation and grammar in the report.	

CATEGORY	4	3	2	1	Score
Participation	Used time well in lab and focused attention on the experiment.	Used time pretty well. Stayed focused on the experiment most of the time.	Did the lab but did not appear very interested. Focus was lost on several occasions.	Participation was minimal OR student was hostile about participating.	
Drawings/Diagrams	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing OR are missing important labels.	
Data	Professional looking and accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in written form, but no graphs or tables are presented.	Data are not shown OR are inaccurate.	
Calculations	All calculations are shown and the results are correct and labeled appropriately.	Some calculations are shown and the results are correct and labeled appropriately.	Some calculations are shown and the results labeled appropriately.	No calculations are shown OR results are inaccurate or mislabeled.	
Summary	Summary describes the skills learned, the information learned and some future applications to real life situations.	Summary describes the information learned and a possible application to a real life situation.	Summary describes the information learned.	No summary is written.	
Analysis	The relationship between the variables is discussed and trends/patterns logically analyzed. Predictions are made about what might happen if part of the lab were changed or how the experimental design could be changed.	The relationship between the variables is discussed and trends/patterns logically analyzed.	The relationship between the variables is discussed but no patterns, trends or predictions are made based on the data.	The relationship between the variables is not discussed.	

CATEGORY	4	3	2	1	Score
Conclusion	Conclusion includes whether results supported hypothesis, sources of error, and what was learned from the experiment.	Conclusion includes whether the findings supported the hypothesis and what was learned from the experiment.	Conclusion includes what was learned from the experiment.	No conclusion was included in the report OR shows little effort and reflection.	
Safety	Lab is carried out with full attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual.	Lab is generally carried out with attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual, but one safety procedure needs to be reviewed.	Lab is carried out with some attention to relevant safety procedures. The set-up, experiment, and tear-down posed no safety threat to any individual, but several safety procedures need to be reviewed.	Safety procedures were ignored and/or some aspect of the experiment posed a threat to the safety of the student or others.	

Maximum Score: 48 Points

Student Score: _____

RESOURCES

The Academic Success Center (ASC) is located in the Activities Center on the Niceville Campus. The ASC provides free learning support services such as tutoring, ESOL, and writing assistance for all NWFSC students. Individual and group tutoring is available in a wide range of subjects on a walk-in-basis and by appointment. For more information, call the Academic Success Center at (850) 729-5389 or visit our website at [Free Tutoring](#).

Reading to Learn (R2L) is a project of Northwest Florida State College designed to support students' learning through direct instruction of reading strategies. Students may access R2L at our website: [Reading to Learn](#).

Math Labs are located in the Math Building L, Room L-131, on the Niceville Campus and in Building 7, Room 702 on the Fort Walton Beach Campus and Room 131 at the Crestview Center. The math labs are open to all students and provide free walk-in tutoring for all mathematics courses. For lab hours, students may call the Math Department at (850) 729-5377 or visit our website at [Math Lab](#).

Smarthinking is an online, real-time tutoring offered free to students, who may access this service via RaiderNet.

Open Computer Labs

There are numerous open computer labs throughout the Northwest Florida State College campuses. Students may access our website for lab locations and hours: [Computer lab location and hours](#)

Testing Center

Testing Centers administer college admissions tests, placement tests, proctored exams, ACT/SAT, GED, CLEP, and DSST (formerly known as DANTES). General information concerning tests, hours

Testing Center hours may be accessed on the Testing Center website at [Testing Center](#). Makeup exams may be taken in the Testing Center, depending upon instructor policies on late work.

Library, Online Reference Materials, and Resources

The library is a comprehensive, learning resource center providing information in print, digital, and multimedia formats to support the educational objectives of the College. In addition to in-house materials, online services and resources can be accessed through the LRC website. Library hours are posted each semester at the building entrance and on the LRC website at [Learning Resource Center](#)

Assistance for Military and Veterans

Northwest Florida State College supports our military and veteran students. You may contact NWFSC Eglin AFB Education Services Building at 850-200-4180 or NWFSC Hurlburt Center Educational Services Building at 850-200-4190 or visit our website: [Support Our Military](#)

Students with Disabilities

Northwest Florida State College supports an inclusive learning environment for all students. If you have disabilities for which accommodations may be appropriate to assist you in this class, please contact the Office of Disability Support Services on the Niceville Campus, or call 850-729-6079 (TDD 1-800-955-8771 or Voice 1-800-955-8770).

