Lectures & Laboratory: MW 9:00AM–12:30PM & 1:30PM–5:00PM, Pomponio Science 204 & 206

Lecture & Laboratory Instructors: Mr. Christopher Cooley, Pomponio Science 222, E-mail: ccooley@regis.edu . Dr. Michael Ghedotti, Pomponio Science 225, E-mail: mghedott@regis.edu .

Materials:


Course Internet Site: http://academic.regis.edu/mghedott/envs250/

Regis Bulletin Course Descriptions:

Introduction to Environmental Science. 3SH. Explores the environment and its modification by human activity within a scientific context. Considers the chemical, geological, climatological, and biological bases of current environmental issues. NOTE: Required for Environmental Studies majors and minors. Designed for non-science majors to meet the Natural Science Core requirement when taken with ENVS 251.

Environmental Science Laboratory. 1SH. Involves laboratory and field exercises accompanying and reinforcing lecture topics. May require a field trip outside of class time. NOTE: One three-hour laboratory per week.

Course Learning Outcomes: Students should be able to…

• generally explain how science differs from other ways of knowing.
• define the major terms used in environmental science.
• explain the major organizing concepts in environmental science.
• recognize the social and ethical relevance of content covered in environmental science, notably ethical issues associated with climate change, resource depletion, and environmental quality.

Grading:

ENVS 250 - Lecture Course
Lecture Contribution 8%
Environmental Issue Paper (1st Draft & Final Draft Combined) 25%
Reading Quizzes (2% each; 8 total with 2 lowest dropped) 12%
Examination 1 (will include reading quiz material for June 14 reading) 20%
Comprehensive Final Examination 35%
Total (Final Course Grade) 100%

ENVS 251 - Laboratory Course
Laboratory Write-Up (10 at 6% each, one due for each lab) 60%
In-Laboratory Participation (10 at 1% each lab) 10%
Comprehensive Final Laboratory Examination 30%
Total (Final Course Grade) 100%

The percent grading scale for the course will be as follows. [The instructors reserve the right to add percentage points to exams or the final course grade if performance is below what they think is reasonable (i.e., “curve”). In no instance will an individual student be given a grade independent of the grade scale applied to the class as a whole.]

A = 100–92.50  B = 82.49–79.50  D+ = 69.49–66.50
A- = 92.49–89.50  B+ = 79.49–76.50  D = 66.49–62.50
B+ = 89.49–86.50  C+ = 76.49–72.50  D- = 62.49–59.50
B = 86.49–82.50  C = 72.49–69.50  F = <59.49

Reading Quizzes are used to ensure that students read the textbook and reader in preparation for class. Seven reading quizzes are given and the two lowest scores are dropped. A missed reading quiz constitutes one of the dropped quizzes. If a third reading quiz is missed for an excused reason it will be averaged out of the student’s grade.

Examinations are designed to assess if students have learned the course material as well as to encourage students to learn and synthesize the material covered previously in the course.
Lecture Contribution will require students to look at the popular but reputable media for articles or findings of relevance to Environmental Science. This exercise seeks to make students more aware of environmental issues in the media and broaden student environmental experience.

Environmental Issue Paper will allow students to explore and environmental subject of interest in greater depth. The paper will be completed as a first and final draft. All submitted papers may be required to be submitted to Turn-it-in.com to check for plagiarism. (See the inappropriate academic conduct section below.)

Laboratory Participation is the instructors’ assessment of student participation and involvement in each laboratory activity and laboratory discussion.

Laboratory Write Ups will require students to analyze data and consider the environmental implications of those data after each laboratory. These exercises in particular seek to help students understand how scientists draw conclusions.

Disability Statement: If you have a documented disability that may require academic adjustments for this course, or you suspect that you may have a disability, please contact Joie Williams, Director of Disability Services (303.458.4941, or mbwillia@regis.edu). If possible, contact Disability Services (Coors Life Directions Center 118) at the beginning of the semester, if possible, so that you can receive accommodations for the complete semester since accommodations are not retroactive.

Possible Grading Inaccuracies: If you think that something was mistakenly graded as incorrect, please bring this to your instructors’ attention. Wait at least one day (a “cooling off” period) and resubmit the test or outline to your instructor with a brief written explanation of why you think the grading was in error. No grading re-consideration requests will be accepted after the final exam.

Putting Your Name on Assignments: It is the student’s responsibility to put her/his first and last name on every examination. Turning in an examination without a name will result in a 0% grade.

Attendance: Attendance at lectures and laboratories is expected. The instructor will take attendance. In class quizzes and exams may NOT be taken before or after their scheduled date. Laboratory Write Ups may not be completed for laboratories that are not attended.

Cellular Phones & Text Messaging: Turn phones off during the class period. If you have a special need to keep one on, you must obtain the instructor’s permission. Give the class your full attention.

Excused Absence: Serious illness documented with a note from a health care provider (not a regularly scheduled appointment), a death in the family, jury duty, required appearance as a legal witness, and NCAA athletic/forensic competition are reasons for excused absences. Absences due to oversleeping, vacations, parties, hangovers, forgetfulness, arrest, or police detention for misconduct are unexcused absences. Whether any other absences are excused or unexcused is entirely at the discretion of the instructor. A final exam missed for an excused absence will be rescheduled. Other assignments or exams missed due to an excused absence will be averaged out of your grade after a completed excused assignment form with attached documentation has been turned in and verified. Missed online quizzes will be part of the three lowest dropped online quizzes. Online quizzes will only be averaged out of a student’s grade if the student has been unable to access a computer and course materials for three weeks or more.

Missed Examination, Quiz, or In-Class Assignment: If you miss, leave, or are removed from class for a reason that is not excused the score on the exam or assignment will be a zero (0) or will be composed of the grade for whatever portion of the examination or assignment was completed before your absence. There will be no opportunity to make up these missed exams or assignments.

Late Assignments: No assignments will be accepted late. Excused assignments will be averaged out.

Parental Contact with the Instructor: Students should bring any concerns to the instructor directly. In some situations, it may be reasonable for the instructor to talk with parents. However, most students are legal adults and federal privacy law requires students to sign a waiver of privacy rights before an instructor can talk with a parent.
Inappropriate Academic Conduct: In the unlikely event that cheating, plagiarism, or academic misconduct occurs, the consequences will be severe.

- Cheating on a single short answer on the exam, copying an assignment, communication with other students in any way about content of the exam during an exam, plagiarism that is in the instructors assessment unintentional, or use of electronic devices for any purpose during exams will minimally result in a 0% score on the assignment/quiz/exam AND the formal report of the infraction to the Dean’s Office.

- Any second offense of inappropriate academic conduct in the class of any type, vandalism, plagiarism that is in the instructors assessment intentional, or large-scale cheating on a quiz or exam (as interpreted by the instructor) will result in immediate failure of the course (grade = F) AND the formal report of the infraction to the Dean’s Office.

- Whenever the instructor deems the nature, extent, or circumstances of any incident of inappropriate academic conduct serious enough to merit more severe punishment the student will be given a grade of F in the course AND the infraction will be reported to the Dean’s Office.

Plagiarism on drafts and plagiarism as represented by non-attribution of sources also is considered to be plagiarism and carries the same penalties as any other type of plagiarism.

Schedule and Anticipated Lecture Topics: The dates for exams and quizzes are fixed. However, the dates for lecture topics are estimates. Read the textbook pages indicated for each lecture.

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<thead>
<tr>
<th>MONDAY</th>
<th>WEDNESDAY</th>
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<tr>
<td><strong>May 24</strong></td>
<td><strong>May 26</strong></td>
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<tr>
<td>Introduction, Science, and Hypotheses</td>
<td>Reading Quiz &amp; Paper Topic Due</td>
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<tr>
<td>Miller &amp; Spoolman - Sections 1-4 &amp; 1-5; all of Chapter 2</td>
<td>Matter &amp; Energy in Ecosystems</td>
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<tr>
<td>LAB 1 (pm) – Science and Chemistry</td>
<td>Miller &amp; Spoolman - All of Chapter 3</td>
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<td><strong>May 31</strong></td>
<td><strong>June 2</strong></td>
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<td>MEMORIAL DAY – NO CLASSES HELD</td>
<td>Reading Quiz&amp; Paper Thesis Due</td>
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<td>Biodiversity and Evolution</td>
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<td>Miller &amp; Spoolman - All of Chapter 4</td>
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<td><strong>June 7</strong></td>
<td><strong>June 9</strong></td>
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<tr>
<td>Reading Quiz</td>
<td>Reading Quiz &amp; Paper Draft</td>
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<tr>
<td>Communities and Populations</td>
<td>Climate, Biodiversity, &amp; Endangered Species</td>
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<tr>
<td>Miller &amp; Spoolman - All of Chapters 5 &amp; 6</td>
<td>Miller &amp; Spoolman - All of Chapters 7 &amp; 8; Section 9-1</td>
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<td>LAB 4 (pm) – Comms. &amp; Pops.* (Lab 3 Write-Up Due)</td>
<td>LAB 5 (pm) – Zoo Trip* (Lab 4 Write-Up Due)</td>
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<td><strong>June 14</strong></td>
<td><strong>June 16</strong></td>
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<tr>
<td>LECTURE EXAMINATION</td>
<td>BIG Reading Quiz</td>
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<td>Environmental Hazards and Air Pollution</td>
<td>Soils and Food Production</td>
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<td>Miller &amp; Spoolman - All of Chapters 17 &amp; 18</td>
<td>Miller &amp; Spoolman – Sections 12-1, 12-2, 12-3, &amp; 12-6</td>
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<tr>
<td>LAB 6 (pm) – Justice Transect* (Lab 5 Write-Up Due)</td>
<td>Montgomery - All of Chapters 1, 2, &amp; 7</td>
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<td><strong>June 21</strong></td>
<td><strong>June 23</strong></td>
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<tr>
<td>Reading Quiz</td>
<td>Reading Quiz</td>
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<td>Nonrenewable Energy &amp; Climate Change</td>
<td>Water Pollution &amp; Solid Waste</td>
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<tr>
<td>Miller &amp; Spoolman - All of Chapters 15 &amp; 19</td>
<td>Miller &amp; Spoolman - All of Chapters 20 &amp; 21</td>
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<tr>
<td>LAB 8 (pm) – NREL* (Lab 7 Write-Up Due)</td>
<td>LAB 9 (pm) – Solid Waste* (Lab 8 Write-Up Due)</td>
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<td><strong>June 28</strong></td>
<td><strong>June 30</strong></td>
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<tr>
<td>Reading Quiz</td>
<td>(Lab 10 Write-Up Due)</td>
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<tr>
<td>Sustainable Cities</td>
<td>FINAL LECTURE EXAMINATION</td>
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<td>Miller &amp; Spoolman - All of Chapter 22</td>
<td>FINAL LABORATORY EXAMINATION</td>
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<td>LAB 10 (pm) – Discussion and Review (Lab 9 Write-Up Due)</td>
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**Final Draft of Paper** (with previous draft with instructor comments) Due Thursday July 1 by 5pm

This syllabus is the governing document for this course.
In-Class Portion of Examination and Quiz Rules

- All in-class examinations and quizzes are closed-note and closed-book activities.
- Note cards, “cheat” sheets, word lists, materials written on hands or arms, or other previously written material aids are explicitly forbidden.
- Hats with brims must be turned on your head in such a way that the brim does not cover or hang over your eyes. (i.e., Turn baseball caps backwards.)
- Cellular telephones, iPhones, and blackberries must be turned off. (This is true of lectures too.)
- No wearing or playing of portable music devices. (e.g., an MP3 player, iPod)
- NO use of ANY ELECTRONIC DEVICES except approved course calculators.
- No communication with other students about examination content in any way once the distribution of exams has commenced.
- Once you have seen the exam you may NOT leave the room to use the restroom or for any other reason until you are finished. (Unless there is a fire alarm or you have an unforeseeable, health-related or physiological emergency.)
- You MAY ask your instructor or other proctors if you have any questions for clarification.

Laboratory Data (for ENVS 251)

- Remember that your data do not need to support your hypothesis for you to receive an "A" grade on any lab report or research paper. They must simply be interpreted appropriately.
- **You MUST report the data that you gather.** Creating data or “cooking” data by altering it to give you different results are the two most egregious offenses that someone can commit in science.
- Creating or altering your data is dishonorable academic conduct. If it is discovered that you have created any data (an easier thing to discover than you might think) you will receive an F grade in the course (or minimally an “F” on the assignment – at your instructor’s discretion).

ENVS 250 Lecture Contribution

Students will be responsible for providing a short lecture contribution on and indicated day. For this contribution, each student will find a recent (within the month) article from a popular journalistic (but reputable) source and then present that article to the class. **The article must be relevant for the topics under discussion that day.** (Good sources of articles are Associated Press, New York Times, National Public Radio, or Public Television. Bad sources of articles for this assignment are Wikipedia, The Huffington Post, CNSNews, OpEdNews, or The Drudge Report.)

After looking at past examples online on the course website, you will construct a short PowerPoint presentation for your presentation and a short, written (NON-plagiarized) summary of the article in your own words. You will be responsible for the following:

- A short 4-7 slide Power Point presentation (that you will present in class) including: (1) A title slide with your name the article title, and the article citation, (2) a couple/few text slides, and (3) a couple/few slides with pictures or other relevant graphics.
- A short typed summary (not to exceed 2 pages) that includes: (1) your name, (2) the citation for the article, and (3) a summary of the article in your own words (*not plagiarized* from the article).
A 5-7 page (+ references/literature cited) paper covering a particular environmental issue is due first as a complete draft and then as a final draft. This paper will have a clear refined positional thesis that addresses a possible solution (or solutions) to the chosen that is then supported by academic literature research and your analysis. In supporting your position you must clearly explain the scientific basis for understanding the problem, proposed solutions (including both/multiple positions), and ethical considerations associated with the environmental issue.

Content Requirements for Paper

The paper must be well written, must explain what is known scientifically about the environmental issue, must rely upon academic literature for evidence, must outline different positions and the proposed solutions, and address ethical considerations. The specific requirements are outlined below:

(Feel free to use this as a paper outline, keeping in mind that each bullet may require more than one paragraph.)

- In a well constructed introduction provide enough information to generally describe the issue and clearly lead to a refined and positional thesis.
- Clearly explain the scientific basis of the issue. What is the natural science explanation for the phenomenon at the heart of this issue? What is known? (Remember that this is a natural science course, and this section should be given significant attention.)
- Clearly explain the social and ethical problems associated with this issue. Why are the physical/chemical/biological changes you previously identified problematic for people. These are what make this an “issue.”
- Clearly describe proposed solutions to the ethical issue leading to the position that you support (and stated in your thesis). In doing this, you should explain the two or more positions with respect to the issue. (Note that for some issues some argue that the problem isn’t “real” and thus nothing needs to be done, which is itself a type of proposed solution.)
- Conclude by summing up your argument and returning to your thesis. (Note: Restate your thesis using different wording and phrasing. Don’t simply copy it from the introduction.)
- Include a references/literature cited section. Use APA, MLA, or “Biological” style.

Style and Basic Writing Requirements for Paper

- Must be well organized with all parts supporting a clearly stated POSITIONAL thesis.
- Must be clear and concise. Avoid wordiness and redundancy.
- Must be grammatically correct and use words correctly. (-2% for each grammatical or word use error)

Specific Format Requirements for Paper

- Papers must be typed or word processed and stapled. -Otherwise they will not be accepted-
- Paper must have margins between 3/4 and 1 ¼ inches, be double spaced or space & a half, have a font size of from 10-12 point and be in a reasonable font face (e.g., Times, Times New Roman, Palatino), and be within the page limits EXCLUDING the references section. (The minimum length is the length in FULL pages.)- 20% off any of these are not appropriate-
- Must include references/literature cited section. -30% off if absent-
- Literature must be cited in text and in the references/literature cited section in either APA, MLA, or “Biological” format. -2% off for each deviation from format.*
- You will need to refer to and appropriately cite as references a minimum of five (5) ACADEMIC SOURCES. You may use non-academic sources (beyond the minimum six academic sources) if you wish to emphasize a point of popular conception or popular culture. -10% off for each missing academic source below the minimum requirement-

Plagiarism

Drafts and Final Papers may be submitted by the instructors to Turn-it-In.com to identify plagiarism. Plagiarism on drafts and plagiarism as represented by non-attribution of sources also is considered to be plagiarism and carries the same penalties as any other type of plagiarism.
**ENVS 250-251 EXCUSED ASSIGNMENT FORM**

Student Name: ___________________________ Date of absence: ___________________________

This form must be filled out to have a score averaged out of a student’s grade as a result of an excused absence. Assignments may not be completed/turned in after the syllabus indicated deadline (they also may NOT be sent via e-mail). A Final Exam or Final Paper missed for an excused absence must be re-scheduled and will not be averaged out of a student’s grade.

A photocopy of documentation of the absence, such as a note from a health care provider or a photocopy of a funeral card/program, must be stapled to this form for it to be accepted. The instructor reserves the right to follow up with the Office of Student Life or other sources to verify excused absences (e.g., faxing a health provider’s note back to the office and asking the office to verify its authenticity).

If this form is not received the missed exam, quiz, or assignment will be graded as a 0%.

This form is for the following assignment (circle one):

- **Lecture Examination 1**
- **Final Lec. Examination**
- **Final Paper (Draft or Final)**
- **Final Lab Examination**
- **Laboratory Write-Up**
- **Dates:** ___________________________
- **Reading Quiz**
- **Dates:** ___________________________
- **Lecture Contribution**

This excused absence if for the following reason (circle one):

- **Illness**
- **Serious Injury**
- **NCAA Game/Forensic Competition**
- **Death of a Close Relative or Friend**
- **Other**

Documentation of illness or serious injury requires a note or photocopy of a note from a certified health care provider.

Documentation of a death would include a photocopy of a funeral card, memorial program, or other document with the deceased’s name.

Include a brief explanation of the reason for the excused absence below.

I the undersigned certify that this was an excused absence of the nature indicated above and request that the indicated assignment be treated as resulting from an excused absence.

Signature: ___________________________ Date: ___________________________