# Economics 322: Environmental/Natural Resource Economics Spring 2024

Professor: Katie Lopresti Office Hours: (location is Chancellors 228)

Email: kelopresti@wm.edu Wed. (11:30 pm-12:30 pm)

Section 01: 12:30-1:50 pm, Boswell Hall 201

Office: Chancellors Hall #257

Fri (by prior appointment only\*) 10:30-11:30 am

\*To schedule a Friday meeting, you must email

me by 4 pm on Thursday afternoon.

\*Friday hours will not be held on 3/8 or 4/19

**Course Overview:** In this course, we will survey environmental and natural resource topics and issues through the lens of economics. We will develop economic models to understand the problems (such as market failure) that often arise from the use of natural and environmental resources and to uncover possible solutions to these problems. Additionally, students will learn how these economic models can be used to evaluate and inform environmental policy. Topics will include externalities, property rights, renewable and exhaustible resources, methods of valuing natural and environmental resources, efficiency and equity, benefit-cost analysis, and other decision-making metrics.

**Textbook:** The textbook for the course is Environmental and Natural Resource Economics, Edition 12 by Tom Tietenberg and Lynne Lewis: ISBN 9781032101187. (There are older editions of this book available. If you choose to go this route, you are responsible for aligning assigned readings/class topics with the content in the older edition.)

**Student Evaluation:** This course consists of two midterm exams, a final exam, four homework assignments, "one minute papers", and reading quizzes.

• **Homework**: There will be four homework assignments during the semester. Homework is due in class. *No late assignments will be accepted.* If you are ill and cannot attend class, you may have a friend turn in the homework to me or slide it under my office door (Chancellors 257) before the end of the class period (1:50 pm). *Please do NOT put homework in my mailbox on the 3<sup>rd</sup> floor.* (As a last resort, in extenuating circumstances, you may email me your homework by the end of class time, 1:50 pm).

To access homework assignments, please refer to the Blackboard site for this course. You may work on homework together, but you should submit your homework written *in your own words*, using your own descriptions and mathematical work. (No homework should be turned in that is simply a close duplicate of another student's, even if you worked together).

#### **Homework Due Dates**

Assignment	<b>Due Date</b>
HW 1	Feb. 8 <sup>th</sup>
HW 2	Feb 15 <sup>th</sup>
HW 3	March 21st
HW 4	April 18 <sup>th</sup>

All homework assignments will be submitted both online in Blackboard and as a physical copy in class. They are due on the date listed by the end of class (1:50 pm). For the online copy on Blackboard, you must submit the assignment *as a single pdf*.

• Exams: Exam dates are provided below. There will be no make-up exams. Students who are not able to take an in-class exam and who provide appropriate documentation in advance (from the Dean of Students Office) will have the final exam reweighted accordingly. Below is contact information for the Dean of Students Office if you find yourself in an emergency situation and need to work with their office to continue your academic success.

Email: deanofstudents@wm.edu

Phone: (757) 221-2510

Exam	Date	Time
Exam 1	Feb. 29 <sup>th</sup>	In-class
Exam 2	April 4 <sup>th</sup>	In-class

• **Reading Quizzes:** These are very short quizzes designed to test your comprehension of some environmental economics papers. Your lowest reading quiz score will be dropped. If you are absent or need to miss a reading quiz for any reason, you can simply drop that reading quiz score.

Reading Quiz	Date	Time
Quiz 1	Feb 22 <sup>nd</sup>	In-class
Quiz 2	March 28th	In-class
Quiz 3	April 16 <sup>th</sup>	In-class

## Final Exam Date (the final exam is cumulative):

• Section 01: May 7th, 9:00 am – 12:00 pm, Boswell Hall 201

It is your responsibility to double-check all of your final exam times at: <a href="http://www.wm.edu/offices/registrar/calendarsandexams/examschedules/">http://www.wm.edu/offices/registrar/calendarsandexams/examschedules/</a>.

• One Minute Papers: Attendance will not be directly taken in this course. However, at the end of some unannounced class sessions, I may ask you to take one minute and write down what you did not understand during the class period and what you understood the best from that class. This provides me with helpful feedback on the material covered in lecture, as well as providing an incentive for attendance.

#### **Breakdown of Course Grades:**

Component	% of Course Grade
One Minute Papers	1%
Homework	20%
Reading Quizzes	3%
Exam 1	24%
Exam 2	24%
Final Exam	28%
Total	100%

Letter grades will be assigned using the following grading scale: 93% -100% = A, 90% to 92. 99% = A-, 88% to 89.99%=B+, 83%-87.99=B, 80%-82.99%=B-, 78%-79.99%=C+, 73%-77.99%=C, 70%-72.99%=C-, 68%-68.99%=D+, 63%-67.99%=D, and 60%-62.99%=D-. Grades below 60% will result in an F.

A grading curve *may* be determined at the end of the semester. The curve would never be stricter than the 90-80-70-60 scale.

**Course due dates:** I will notify students of any changes in assignment due dates in advance of posted due dates. Changes in due dates may occur in the event of cancelled classes due to weather or other events that change the pace at which we progress through the material.

All grades will be posted on Blackboard. If there is a discrepancy between the grade written on your course work and the grade posted in Blackboard, you have *one week* after the work is returned to bring this to my attention, or the grade will remain.

### **Add/Drop and Withdrawals**

- The add/drop deadline is February 2<sup>nd</sup>.
- The withdrawal deadline is March 25<sup>th</sup>.

Important W&M Calendar dates can be accessed here:

https://www.wm.edu/offices/registrar/calendarsandexams/ugcalendars/index.php.

**Academic Honesty:** All students are expected to adhere to the Honor Code: http://www.wm.edu/offices/deanofstudents/services/studentconduct.

Students are always encouraged to study together, but all academic work that is turned in should be the student's own work and students should follow all course guidelines. Please note, this means if you do your homework with another student, your work should not be an exact duplicate of another student's work. Use your own words to explain what you are doing.

\*All the assigned coursework (exams, homework assignments, etc.) are created by me and are my intellectual property. No material from our course should be posted or shared outside of our class.

**Absences:** Economics is a course where knowledge builds throughout the semester. Attendance is important to succeed in this course. However, if you do have an occasional absence, I expect you to work with a class contact to borrow notes from the course. On the first day of class, we will create a "buddy system." Please share contact information with *at least* one person in the class so that you have a student you can borrow notes from if you need to miss class. You are welcome to contact me if you need help finding a class contact.

**Class Conduct:** During the class period, please put your cell phones away. Please do not use your cell phones for any reason (texting, taking photos, etc.). If I see you using your cell phone, I will ask you to put your phone away. If there is an urgent reason that you need to access your phone, please exit the classroom to do so. Students are not permitted wear hats or headphones during the exam.

In this class, the use of laptops is not the best way to take notes. Tablets that you can write on may be useful, but please speak with me first if you feel you need to use a laptop in class.

#### **Useful Guidelines for Lecture Classes and Office Hours**

If you would like to familiarize yourself with the basic rules for how office hours or lecture classes work, please see some useful guides and expectations below. (The following resources were created by Josh Burke, Cheryl Dickter, Karin Wulf, and Janice Zeman during a University Teaching Project.)

- Hidden Rules of Lecture Classes: https://www.wm.edu/sites/neurodiversity/documents/hiddenrulesseminar.pdf
- Hidden Rules for Office Hours: <a href="https://www.wm.edu/sites/neurodiversity/documents/hidden-rules-for-office%20hours.pdf">https://www.wm.edu/sites/neurodiversity/documents/hidden-rules-for-office%20hours.pdf</a>

**Student Accessibility Services:** Any student with disabilities who feels they may require additional accommodations to assist their academic success based on a physical, psychiatric, learning, or chronic health diagnosis should contact the Student Accessibility Services office. Please notify me well in advance of any exams or other course deadlines and provide documentation from Student Accessibility Services if you require additional accommodations for exams and coursework.

Please note that you must contact SAS in advance to schedule a place to take your exams if you have accommodations (schedule more than a week prior to the date of the exam). Since you have the dates of all your exams, you should book all your exam spots in the first few weeks of the semester. If you fail to contact me or SAS in advance, you may be unable to use your accommodations for exams and coursework.

Website: www.wm.edu/offices/deanofstudents/services/studentaccessibilityservices

Location: 181 Sadler Center

**Phone:** 757-221-2512 **Email:** sas@wm.edu

### **COVID Policies**

Please note that this course will follow rules and guidelines implemented by W&M surrounding Covid. Recommended protocols may change based on new information. In the event this happens, I will inform you via email about our plans and any necessary adjustments to the course format going forward.

If you have questions about W&M's current Covid policy, please visit the link below: <a href="https://www.wm.edu/about/administration/emergency/current\_issues/coronavirus/">https://www.wm.edu/about/administration/emergency/current\_issues/coronavirus/</a>.

#### **AI Policies**

All work in this course must be *your own work*. Using or incorporating any content generated by AI (from sources like ChatGPT, etc) is **not allowed**. This means, for example, that you cannot use AI for generating ideas or for help with your homework. Use of AI is not allowed at any stage of your work.

Work that you submit to the class may be reviewed, if necessary, for content generated by AI.

\*\*AI will evolve over time and so will its use in W&M classrooms and your future careers. However, in this course, it is essential that you master economic tools and concepts on your own. If you do not have a deep individual understanding of these economic concepts and a strong base of knowledge about how to use an economic model, then AI tools will not be useful to you in your future careers.

## Mental and Physical Well-Being

William & Mary recognizes that students juggle different responsibilities and can face challenges that make learning difficult. There are many resources available at W&M to help students navigate emotional/psychological, physical/medical, material/accessibility concerns, including:

- The W&M Counseling Center <a href="https://www.wm.edu/offices/wellness/counselingcenter/">https://www.wm.edu/offices/wellness/counselingcenter/</a>; or (757) 221-3620. Services are free and confidential.
- Students now have access to TimelyCare, a virtual health platform with 24/7 availability: https://www.wm.edu/offices/uhr/benefits/health/timelycare/.
- For physical/medical concerns, please consider reaching out to the W&M Health Center at https://www.wm.edu/offices/wellness/healthcenter/; or (757) 221-4386.
- For additional support or resources, please contact the Dean of Students by submitting a Care Report at <a href="https://www.wm.edu/offices/deanofstudents/services/caresupportservices/index.php">https://www.wm.edu/offices/deanofstudents/services/caresupportservices/index.php</a>; or by calling 757-221-2510, or by emailing deanofstudents@wm.edu.
- For a list of many other resources available to students, see <u>Health and Wellness Resources for Students</u>.

**Schedule**: This is a tentative schedule of the order in which we will approach topics. We will pick and choose from the topics section as time allows.

## **Foundation**

- Chapter 1: Introduction
- Chapter 2: Property Rights, Externalities, and Environmental Problems
- Chapter 3: Cost-Benefit Analysis
- Chapter 4: Valuing the Environment
- Chapter 5: Sustainability

# **Possible Additional Topics\***

- Pollution Control
- Transportation
- Toxic Substances/Environmental Justice
- Climate Change
- Ecosystem Goods and Services
- Forests/Fisheries/Land

<sup>\*</sup>Many of these topics are often covered as applications in the foundations section of the course.