

Resource Economics (NRES 372/572) Spring 2024

(3 credits: two hours asynchronous online lectures and one 1-hour F2F discussion per week)

INSTRUCTOR: Dr. Melinda Vokoun **OFFICE:** TNR 376
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Class Time: **Lecture:** Asynchronous online (complete prior to the week's discussion) via Canvas
Discussion: In person (F2F)

| | | | |
|-------------------|--------|---------------------|---------|
| Section 1: | Thurs. | 10:00 am – 10:50 am | TNR 320 |
| Section 2: | Fri. | 11:00 am – 11:50 am | TNR 320 |
| Section 3: | Thurs. | 2:00 pm – 2:50 pm | TNR 153 |

Final Exam: Online via Canvas on 05/14 open from 8 am to 5 pm

Student Hours: Monday 1 – 2 pm and Wednesday 11 am– 12 pm in person or via Zoom (link available in Canvas course page and under Canvas class materials). If you have a question and these hours do not work for you, either stop by my office or ask for an appointment by sending me an email with some days/times that you have available.

Text: Tietenberg, Tom & Lynne Lewis. 2010. *Environmental Economics & Policy*. 6th ed. Addison-Wesley, Boston, Mass. 526 p. (EEP)

General Education Program (GEP): Successful completion of this course will fulfill 3 credits of Human Cultures and the Sciences requirements with the UWSP GEP in the Social Sciences Category. Social Sciences GEP Outcomes are:

- 1) Explain or apply major concepts, methods, or theories used in the social sciences to investigate, analyze, or predict human behavior.
- 2) Examine and explain how social, cultural, or political institutions influence individuals or groups.

Course Learning Outcomes: Students in this course will learn the principles of microeconomics, their use and application, specifically relating to natural resource management and policy. Upon completion of this course, students will be able to:

1. Use economic tools and frameworks to make natural resource management decisions (GEP 1)
2. Define economic and ecological values for ecosystem services and propose appropriate methods to assess these values (GEP 1)
3. Identify market failures in natural resource economies and reasons for, and effects of, policy interventions (GEP 1, 2)
4. Apply calculations to make economically sound decisions and comparisons (GEP 1, 2)

Forestry Core: This course is part of the Forestry Core Curriculum. All forestry concentrations include the Forestry Core Curriculum and are accredited by the Society of American Foresters (SAF). Students in this course will fulfill part of SAF Management of Forest Resources competencies (**parts fulfilled are bolded**):

- **an understanding of the valuation procedures, including market and nonmarket forces**, that play a role in forest management decisions (SAF C4-C.6)

- **an ability to synthesize product utilization and pricing, management costs, financial discounting and land and timber valuation in the context of a management plan or evaluation of competing management alternatives or strategies (SAF C4-C.7)**
- **an understanding of the non-market, cultural, and ecological values that forest can provide (SAF C4-C.8)**
- **an ability to analyze existing data to predict the economic, environmental, and social consequences of forest resource management strategies and decisions. (SAF C4-D.6.)**

Assessment: Class activities will be conducted to determine whether course learning outcomes are being met. You will never be individually identifiable in any information collected & used for this purpose however I may use any information provided (but will never associate a name with it).

Grading: This class consists of 350 total points. There will be:

- 3 case studies each counting for 17 points: Case study articles and directions will be uploaded to Canvas. These assignments are designed to give you some insight into practical applications of economics in natural resource management and use.
- 3 written exams each counting for 60 points: Written exams will be delivered in person during assigned times in the respective discussions on the date listed in the syllabus. The 3rd exam (final) will be online in Canvas during finals week.
- 9 problem sets each counting for 9 points (there will be 10 problem sets assigned, I will drop your lowest score): Problem sets will be assigned on the first discussion day listed in the syllabus and due on the following Tuesday as an upload to Canvas.
- Weekly “knowledge check” lecture quizzes due on Thursdays at 9 am (this is the hour before the first discussion of the week) starting week 2. 7 points per “third” of the class. These will accumulate and total to 21 points over the semester.
- Jim and Katie Krause Undergraduate Research Symposium assignment 11 points.
- Initial discussion assessment 6 points.

Grading scale: 100-92 = A, 91-90 = A-, 89-88 = B+, 87-82 = B, 81-80 = B-, 79-78 = C+, 77-72 = C, 71-70 = C-, 69-68 = D+, 67-60 = D, <60 = F

Instructor’s rules:

(1) Discussion of course material and assignments between students is encouraged, however all work must be done independently, unless directed otherwise.

(2) Cheating and/or plagiarism will not be tolerated. <https://www3.uwsp.edu/dos/Documents/UWSP14-Final2019.pdf>

(3) Absences: If you plan to miss an exam, you must let me know ahead of time **and** provide a legitimate explanation for your absence. Unexcused absences or delayed notification (unless reasonable) will result in a ZERO for the exam. Discussion assignments will be due the lecture period following discussion (Tuesday), unless otherwise specified. Late assignments incur a **5% per day penalty**. If you are subject to quarantine or isolation because of COVID, please notify me so that we can arrange for alternate delivery of course materials.

- (4) All written work is expected to be neat and well organized. Work that is illegible will receive a zero.
- (5) Students will be responsible for downloading and printing (if desired) course notes from Canvas.
- (6) Disruptive behavior will not be tolerated. It diminishes the opportunity for learning by peers and shows disrespect to your peers and to your instructor. Students will receive ONE warning about disruptive behavior. At the second instance the student will be asked to leave class and will forfeit **ALL** opportunities to receive credit for any activities conducted that day. A third instance will result in disciplinary action following university guidelines, see: <https://www3.uwsp.edu/dos/Documents/UWSP-CH17-Updated-August2020.pdf>
- (7) A simple calculator with the ability to compute exponents ***will be necessary*** for this class. Use of phones or other electronic devices to conduct calculations **IS NOT** an acceptable practice.
- (8) Upon entering the classroom, cell phone/smart phones ringers will be turned off or muted.

Tips for success, from former successful students:

1. Attend class. If you do miss, get notes from someone who takes complete notes.
2. Notes: Write down what's on the slides and what the instructor is saying.
3. Attend group tutoring. Use the study guides to make exam notecards.
4. If you have questions, see Dr. V - she'll make sure that you understand.

Additional Support Resources: The Tutoring-Learning Center (TLC) helps students in all disciplines become more effective, confident learners. We believe all learners benefit from sharing work with knowledgeable, attentive tutors. The TLC offers four tutoring services:

- **Academic Coaching:** Build skills in studying, time management, test-taking, online learning, and more.
- **Course Content:** Practice problems, deepen understanding, and prepare for exams in natural resources, STEM, World Languages, and more.
- **Reading/Writing:** Brainstorm and refine papers, essays, lab reports, citations, résumés, scholarship applications, personal writing, and more.
- **Tech Essentials:** Develop computer literacy and learn to use UWSP-related applications such as Canvas, Microsoft 365, and Zoom.

To **make an appointment**, students can self-schedule using Navigate, contact us at tlctutor@uwsp.edu or 715-346-3568, or stop into CCC 234.

Accessibility Statement: Any student who needs an academic accommodation due to the impact of a disabling condition (including ADHD, learning disabilities, psychological and/or medical conditions, or temporary injury) should contact the Disability Resource Center (DRC) at 715-346-3365, drc@uwsp.edu, or www.uwsp.edu/drc to determine reasonable accommodations. The DRC supports students and faculty in the notification and implementation of those accommodations, in accordance with the University's obligations under federal law and Board of Regents policy

(see <https://www.uwsp.edu/datc/Pages/law-regent-policy.aspx>). Students can seek accommodations in a course at any time but are advised to do so early in the semester to ensure sufficient time to establish.

Copying, recording, and use of instructional materials: Lecture materials and recordings for Resource Economics are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a session is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students **may not** copy or share materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWSP Chapters 14 and 17, governing student academic and non-academic misconduct.

Principles of professionalism: The College of Natural Resources at the University of Wisconsin – Stevens Point prepares students for success as professionals in many fields. As a professional, there are expectations of attainment of several personal characteristics. These include:

Integrity: Integrity refers to adherence to consistent moral and ethical principles. A person with integrity is honest and treats others fairly.

Collegiality: Collegiality is a cooperative relationship. By being collegial you are respecting our shared commitment to student education through cooperative interaction. This applies to all involved in the process: students, staff, faculty, administration and involved community members. You take collective responsibility for the work performed together, helping the group attain its goals.

Civility: Civility refers to politeness and courtesy in your interactions with others. Being civil requires that you consider the thoughts and conclusions of others and engage in thoughtful, constructive discussion to express your own thoughts and opinions.

Inclusivity: Inclusivity requires you to be aware that perspective and culture will control how communication is understood by others. While many values are shared, some are quite different. These differences in values should be both considered and respected.

Timeliness: Timeliness is the habit of performance of tasks and activities, planned in a way that allows you to meet deadlines. This increases workplace efficiency and demonstrates respect for others' time.

Respect for Property: Respect for property is the appreciation of the economic or personal value an item maintains. Maintaining this respect can both reduce costs (increase the operable life of supplies and equipment) as well as demonstrate respect for others' rights.

Communication: Professional norms in communication require that you demonstrate the value of your colleagues, students, professors, or others. The use of appropriate tone and vocabulary is expected

across all forms of communication, whether that communication takes place face to face, in writing or electronically.

Commitment to Quality: Quality is the ability to meet or exceed expectations. By having a commitment to quality, we intend to provide a learning environment that is conducive to learning. Intrinsic to this commitment to quality is defining expectation (committed to in a syllabus through learning outcomes), implementation (with quality control in place) and assessment (where meeting of learning outcomes is determined).

Commitment to Learning: Learning is a lifelong process. By being committed to learning you are providing a model for all to follow. This model is not only professor to student but involves all combinations of people within our university and broader community

Adherence to this compact is required of the faculty and staff of the College of Natural Resources and of all students enrolled in College of Natural Resources courses.

Inclusivity Statement

Your instructor, as a member of the forestry discipline, following the lead of the Society of American Foresters which accredits the B.S. forestry degree, believes we all have a responsibility in creating a safe, inclusive, professional environment in all forestry-related activities and events. All forms of discrimination, harassment, and bullying are prohibited. This applies to all participants in all settings (online and in-person) and locations (on- and off-campus) where classes and associated activities are conducted, including student organization events and activities, committee meetings, workshops, conferences, and other work and social functions where employees, volunteers, sponsors, vendors, or guests are present.

Discrimination is prejudicial treatment of individuals or groups of people based on their race, color, creed, religion, age, sex, sexual orientation, gender identity or expression, national origin, ethnicity, ancestry, disability, pregnancy, marital or parental status, veteran status, or any other category protected by law.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that creates an intimidating, hostile, or offensive environment. Sexual harassment constitutes discrimination and is illegal under federal, state, and local laws.

Bullying is unwelcome, aggressive behavior involving the use of influence, threat, intimidation, ridicule, hazing or coercion to dominate others in the professional environment. Bullying behavior may go beyond characteristics protected by applicable laws, including but not limited to, political views, dress, or other outward physical appearances.

Other types of harassment include any verbal or physical conduct directed at individuals or groups of people because of their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws, that creates an intimidating, hostile, or offensive environment.

The following list, while not exhaustive, includes examples of unacceptable behavior: slurs, jokes, threats, or derogatory comments relating to the characteristics noted above. Examples of inappropriate physical harassment that violate this statement include, but are not limited to: assault, unwanted touching, or impeding or blocking movement. In addition, no individual may be denied admission to, or participation in or the benefits of, any UWSP-associated events. Similarly, the display or circulation of derogatory or demeaning posters, cards, cartoons, emails, texts, videos, and graffiti which relate to characteristics noted above violate this statement.

Reporting

Students, staff, faculty, or guests associated with Forestry-related programming who experience or witness incidents of harassment are strongly encouraged to report the incident. The Forestry discipline strongly urges the prompt reporting of complaints or concerns so that rapid and constructive action can be taken. Reporting can be done online or in person, to a faculty or staff member, and/or the UWSP Dean of Students. Anonymous reporting is available.

The UWSP Title IX Website is the home for all information related to harassment and discrimination, including reporting options, student and employee resources, and information about what happens after a report is submitted: <https://www.uwsp.edu/titleix/Pages/default.aspx>

Know/remember that course takes place at the University of Wisconsin-Stevens Point, which occupies lands of the Ho-Chunk and Menominee people. Please take a moment to acknowledge and honor the ancestral Ho-Chunk and Menominee land and the sacred land of all indigenous peoples.

Emergency procedures:

In the event of a medical emergency, call 911 or use red emergency phone located immediately outside TNR 320 OR near TNR 153 the discussion classroom. Offer assistance if trained and willing to do so. Guide emergency responders to victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure at TNR 157 and second floor interior hall (for discussions in 320).

In the event of a fire alarm, evacuate the building in a calm manner. Meet at Pointer dog sculpture on TNR west side (TNR 157) or the sculpture on TNR east side (TNR 320). Notify instructor or emergency command personnel of any missing individuals.

Active Shooter – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders. See UW-Stevens Point Emergency Management Plan for details on all emergency response at UW-Stevens Point at <https://www3.uwsp.edu/emergency/Pages/emergency-procedures.aspx>.

NRES 372 – Spring 2024 - Tentative Lecture Outline

| <i>Week of (Wk)</i> | <i>Topic(s)</i> | <i>Readings (EEP)</i> |
|---------------------|--|-----------------------|
| 1/22 (1) | Introduction; Economics for the environment | Chap 1 & 2 |
| 1/29 (2) | Markets: Consumers & Demand | Chap 2 & 4 |
| 2/5 (3) | Markets: Producers & Supply; Outcomes & Interactions | Chap 2 & 4 |
| 2/12 (4) | Markets, Valuing the environment methods introduction | Chap 7 & 3 |
| 2/19 (5) | Methods for valuing the environment | Chap 3 |
| 2/26 (6) | Valuing the environment: Concepts | Chap 2 & 3 |
| 3/4 (7) | Concepts for valuing the environment; Market failures | Chap 2, 3, 4 |
| 3/11 (8) | Positive consumption externalities: public goods market failures | Chap 4 |
| 3/18 | Spring Break No classes | Spring Break |
| 3/25 (9) | Forest management decisions as public goods externalities | Chap 12 |
| 4/1 (10) | Forest management and forest/land policies | Chap 12 & 10 |
| 4/8 (11) | Negative consumption externalities aka open access & common property market failures | Chap 4 & 13 |
| 4/15 (12) | Marine Fisheries | Chap 13 |
| 4/22 (13) | Marine Fisheries; Negative production externalities | Chap 13 |
| 4/29 (14) | Negative production externalities & the pollution problem | Chap 4 & 14 |
| 5/6 (15) | Approaches and policies to address pollution | Chap 14 |
| FINALS | Final Exam** Canvas 05/14/24 | EXAM |

****The Final course exam will NOT cover all material learned over the course of the semester, however understanding economics & its role & importance in natural resource management is a cumulative process.**

NRES 372 Spring 2024 Tentative Discussion and Assignment Schedule

| Week | Topic | Assignment | Assigned | Due |
|------------------------------------|---|---------------------------------|----------------------------|------------------|
| 1 | Introduction discussion | Initial Assessment | In discussion (1/25, 1/26) | |
| 2* | Consumers & Demand | Problem set 1 | 2/1, 2/2 | 2/6/24 |
| 3* | Producers & Supply; Interactions | Problem set 2 | 2/8, 2/9 | 2/13/24 |
| 4* | Price elasticity and shifts; valuation methods | Problem set 3 | 2/15, 2/16 | 2/20/24 |
| 5* | Methods for valuing the environment | Exam 1 review | 2/22, 2/23 | |
| 6 | Concepts for valuing the environment; Exam 1 | Exam 1 | 2/29, 3/1 | 2/29/24, 3/1/24 |
| 7* | Concepts for valuing the environment | Problem set 4 | 3/7, 3/8 | 3/12/24 |
| 8* | Public Goods | Problem set 5 | 3/14, 3/15 | 3/26/24 |
| break | Spring Break | March 16, 2024 – March 24, 2024 | | |
| 9* | Forest Management and Public goods | Problem set 6 | 3/28, 3/29 | 4/2/24 |
| 10* | Forest management/land policies | Problem set 7 | 4/4, 4/5 | 4/9/24 |
| 11 | Negative consumption externalities; Exam 2 | Exam 2 | 4/11, 4/12 | 4/11/24, 4/12/24 |
| 12* | Negative consumption externalities/Marine Fisheries | Problem set 8 ^a | 4/18, 4/19 | 4/23/24 |
| 13* | Open access failures/Marine Fisheries | Problem set 9 | 4/25, 4/26 | 4/30/24 |
| 14* | Neg production externalities | Problem set 10 | 5/2, 5/3 | 5/7/24 |
| 15* | Hold discussion for review & semester end items | | 5/9, 5/10 | |
| Assignments distributed via Canvas | | | | |
| 3 | Case study 1 distributed | Case study 1 | 2/5/24 | 2/27/24 |
| 7 | Case study 2 distributed | Case study 2 | 3/4/24 | 4/16/24 |
| 9 | Research Symposium Assignment | RSA | 3/25/24 | 04/30/24 |
| 12 | Case study 3 distributed | Case study 3 | 4/15/24 | 5/7/24 |
| Finals | Exam 3 (8 am to 5 pm via Canvas) | | 5/14/24 | 5/14/24 |

^a Discussion will NOT meet in person on 4/18 & 4/19 due to Jim and Katie Krause Research Symposium on 4/19, Problem set and Research Symposium assignment will be distributed via Canvas
 *Indicates weeks where there will be a weekly knowledge check quiz due by 9 am Thursday of that week.