

AGEC 445: Environmental & Natural Resource Economics

Spring 2024 Course Syllabus

Course Description:

This course addresses a range of economic, social, and political factors involved in the utilization and conservation of natural resources. Topics covered include, but are not limited to, benefit-cost analysis, multi-objective planning, externalities, and welfare economics. We will consider the value of the environment and natural resources in multiple contexts and how those can be quantified and analyzed. Special attention will focus on developing effective policy tools and regulatory action as well as analyzing existing environmental and natural resource policy.

Course Objectives and Learning Outcomes:

The primary objective of this course is to introduce students to the discipline and practices of environmental and natural resource economics as well as some of the broad issues addressed in the field. Upon successful completion of the course, students should have a strong working knowledge of:

- the basic economic theory employed in environmental and natural resource economics;
- the development environmentalism, naturalism, and the field of environmental economics;
- the application of basic economic principles to natural resource allocation and management decisions;
- common measurement and estimation techniques used for quantifying environmental and natural resource values;
- policy and processes for developing and enforcing environmental regulations;
- major current issues facing the environment and society (including agricultural sustainability, environmental justice and equity, invasive species and wildlife management, property rights for water and energy sources, and many others); and
- the role of economics in addressing environmental issues.

Instructor:

Instructor: Dr. Anthony R. Delmond
Office: 143 Brehm Hall
Phone: (731) 881-1098
Email: adelmond@utm.edu
Class Time: MWF, 2:00-2:50 p.m. Central, EPS 204
Office Hours: MW, 9:00 a.m.-11:00 a.m. Central
Credit Hours: 3.0
Prerequisites: ECON 202 or AGECEC 110

Course Resources:

This course will require students to have access to a computer with high-speed internet capabilities. Homework will be assigned through Canvas, and many will require basic document processing and presentation software. There is also the possibility that some lecture material may be delivered online (virtually or recorded).

Recommended Materials:

Text: *Environmental and Natural Resource Economics*, 12th Edition. Tom Tietenberg and Lynn Lewis. Routledge/Taylor & Francis Group, 2024.
Natural Resource Economics: An Introduction, 4th Edition. Barry C. Field. Waveland Press, Inc., 2024.

Additional Readings:

Other literature will be distributed throughout the semester, and it is considered mandatory reading (unless otherwise stated by the Instructor).

Design of the Course:

The structure of this course has been largely revised for the Spring 2024 semester. Specifically, the instructor has adopted a modified-flipped-learning environment. Instead of doing long, traditional in-class lectures, students will watch short video lectures and read materials on their own time before class. Classroom time will be dedicated to discussion and group work. To keep everything on track, a detailed schedule has been provided to let students know what to expect each class day and what they need to prepare in advance.

Assessments:

Assignments and Participation: There are several assignment types for this course, outlined in detail below. Participation and attendance are mandatory for this course, and those will also be assessed under the Assignments & Participation category.

Lecture Videos & Readings: Students must watch the lecture videos (with embedded assignments where applicable) and complete all assigned readings before class. Lecture video grades will be based partly on completion (watch it on your own) and partly on responses to embedded quiz questions.

Quizzes: To ensure that students are keeping up with the mandatory readings, the Instructor will occasionally give unannounced quizzes. Be sure to keep on top of the readings. Deadlines are posted in the course schedule.

Group Discussions: This course is largely discussion-based. Students will be expected to participate in discussions every day. Attendance is mandatory, but **active** participation is graded. To actively participate, **you must have (1) watched the associated lecture videos before class and (2) completed the associated readings before class**. Participation will be graded for quality and engagement. Make sure to actively participate in those classroom discussions. There will be no make-up discussions, and only qualifying absences will be excused.

Small-Group Discussions and Assignments: Some small-group discussions and assignment will be completed during class time. This is an opportunity for students to work together to build their technical knowledge and depth of understanding while having direct access to the instructor for questions. There will be no make-up small-group assignments, and only qualifying absences will be excused.

Guided Reflections: At the end of some modules, the professor *reserves the right* to have students write a brief reflection based on an instructor-provided prompt. These reflections will build from the lecture material, the readings, and classroom discussions/applications. Prompts and rubrics will be provided with each reflection assignment. The purpose is to gauge how well students are engaging with the materials and understanding the concepts.

Project: There is a semester-long "research" project in this class with two final deliverables: a research paper and a presentation.

Research Paper: Each student is responsible for writing a paper examining some specific issue related to the environment or a natural resource. The paper should: (1) present the problem, (2) use data to demonstrate the size/implications of the problem, and (3) outline a potential solution and/or policy to reduce the effects of the problem. An example follows:

- You want to examine the increasing population of wild hogs in Tennessee. You could measure the impacts on agriculture, tourism, or local vegetation. You must support your valuation/estimation techniques and your numbers. Your proposed solution might be to set up a bounty system for wild hogs inside the state. Obviously, you would need to do substantial research on each component and collect your own data to make the argument that your suggested solution would be an improvement.

Regardless of the topic you choose, you will need to use the estimation, valuation, and decision-making tools discussed in class. Papers should be 1,500-2,500 words and should include at least 10 high-quality, fact-based references. Papers must be typed using 12-point font. Students must include references for any facts, figures, or general information obtained in researching this topic. This is an individual assignment, so the professor does not expect to see overlap in these papers (though some topics may be similar).

If you have additional questions about the paper, just ask! **There will be various deadlines for this paper to keep students on track to submit a complete final draft by the end of the term.**

Presentation: Accompanying the paper will be a short presentation. This is meant to convey what issue you investigated, what you learned, what data you collected, and your position and/or policy prescription. Presentations will be scheduled for Apr. 8-12.

Exams: There are three midterms and one final in this class. All exams are cumulative. The form of the final exam will be at the instructor's discretion; it may be an application exercise or a multiple-choice test or some two-part combination. The format of the final exam will be discussed toward the end of the semester.

Tentative Exam Dates (subject to change):

Exam #1:	Wed., February 7, 2024
Exam #2:	Wed., March 6, 2024
Exam #3:	Wed., April 3, 2024
Final Exam:	Tuesday, April 30, 2024 at 12:45 p.m. to 2:45 p.m.

Grading Policy:

Assignments and Participation	40%
-------------------------------	-----

Project	20%
Exams	40%

Course grades will be determined using the following scale:

A	90–100%
B	80–89.99%
C	70–79.99%
D	60–69.99%
F	0–59.99%

Scores will be updated on Canvas on a regular basis.

Contacting the Instructor:

Students are encouraged to ask questions during class time. Students may also ask questions during office hours and by email. **If you send an email, please include “AGEC 445” in the subject line.** You should try to complete all assignments well in advance of deadlines in case you have questions. The instructor cannot guarantee availability to answer questions shortly before deadlines.

Attendance Policy & Classroom Expectations:

Be Prepared: Participation is included in the course grade, so skipping discussions or readings/lectures is usually a suboptimal decision. Students are expected to complete all assigned readings. Referring to lectures, videos, and any assigned readings will give students a better understanding of the course content and make for more active and meaningful class discussions. Participation and discussion enhance student learning.

Be Professional: Each student is expected to be a positive member of and contributor to the class. Students are expected to be courteous and participate in a manner that facilitates a positive learning environment for everyone. Mutual respect and collaborative effort are essential. Regarding professional communication, emails (and written class discussions/communications) should *never* include text-like abbreviations or slang (for example, "LOL"). It is beneficial for you as a student to practice formal communication to better prepare for a professional career. An email should include a salutation or greeting, a body with proper and appropriate grammar, and a signature. Please practice formal communication with other students and certainly with all of your UTM professors!

Be Honest: In addition to the University policies outlined below, I include a comment on honesty. While I do not expect to have any issues in this class, instances of cheating have generally been on the rise since the beginning of the COVID-19 pandemic.

Cheating. Cheating will not be tolerated in this course. This includes acquiring answers, using "cheat sheets," cell/smart phones, or providing answers to others during examinations or assigned work, unless otherwise specified by the instructor.

Plagiarism. Presenting work or ideas of another individual without giving credit and proper documentation is plagiarism. According to Richard L. Saunders from the UTM Paul Meek Library, "Plagiarism is using others' ideas or words without clearly

acknowledging the source. Boiled down, plagiarism means passing off someone else's work or ideas as your own, whether or not the source is identified. Copying all or part of a Website, document, or presenting an image without a correct citation, constitutes plagiarism." Consult the following Website if you have questions about plagiarism: <https://libguides.utm.edu/plagiarism>.

ChatGPT/AI. The use of ChatGPT and/or any other AI technology in writing (for papers, discussions, essays, assignments, exams, etc.) is strictly prohibited unless otherwise directed by the instructor. There are currently many detection options available for faculty, and some of the assignments/exams will be processed directly through a detection program. If the instructor suspects a student of using AI technology, disciplinary action will be assessed as with any other form of cheating.

Cheating, plagiarism, and the use of ChatGPT/AI are serious offenses. If you are caught doing any of these you will receive an automatic failing grade for the course and the case will be referred to the Office of Student Conduct.

Instructor Responsibilities:

The instructor agrees to be prepared, professional, respectful, honest, and fair. It is the instructor's responsibility to ensure that students have the opportunity to gain a clear understanding of the course material and to be fair and consistent in grading. The instructor agrees to be available for additional help and to be conscious of the learning pace of the class (and adapt the pace as necessary). I am here to help you! Please do not hesitate to contact me if you need extra assistance.

Illness and Health-related Policies:

This class will adhere to any State and University policies regarding COVID-19 and other health-related precautions. For example, any University masking policy in effect will be observed in this classroom by students, faculty, and guests. Failure to adhere to this policy will result in removal from the classroom and a referral to the Office of Student Conduct, similar to any other class disruption. Regarding health-related absences, students are responsible for making up all assignments within a reasonable timeframe (to be determined on a case-by-case basis by the instructor). Illnesses will follow the normal procedures (doctor's notes, etc.). To ensure you are able to earn credit for missed assignments, **keep the instructor informed.**

Disclaimer:

This syllabus may be adjusted during the semester at the instructor's discretion.

University Policies & Resources

Academic Integrity: The University of Tennessee at Martin has chosen as its primary objective quality undergraduate education. Commitment to this objective must include an obligation by all members of the University community to promote and protect the highest standards of integrity in study, research, instruction and evaluation. Dishonesty or unethical behavior does not belong at an institution dedicated to the promotion of knowledge and learning. Integrity of the academic process requires fair and impartial evaluation by faculty and honest academic conduct by students. Specific integrity attributes can be found at: <https://www.utm.edu/offices-and-services/student-conduct/academic-integrity.php>.

Standard of Conduct: When persons enroll in the University of Tennessee at Martin, they retain the rights and duties of a citizen. Additionally, they must assume the duties and observe the regulations imposed by the University community. Specific conduct attributes can be found at: <https://www.utm.edu/offices-and-services/student-conduct/>.

Disability Services: The University of Tennessee provides reasonable accommodations (academic adjustments and auxiliary aids) to ensure equal access to educational content and university programs for students with disabilities. If you have a disability that may require assistance or accommodation, or if you have questions related to any accommodations for testing, notetaking, reading, etc., please speak with the instructor as soon as possible. Students who are eligible for and who request accommodations through the Office of Disability Services must provide instructors with a **letter of accommodation** (sent directly from the Student Success Center). If you need a letter of accommodation for the semester or if you think you may have a learning disability, contact Wendy Elliott in the Accessibility Resource Center located in the Student Success Center, 206 Clement Hall, (731) 881-7195 (<https://www.utm.edu/offices-and-services/accessibility-resource-center/>).

Emergency Alerts: Though the probability of incurring a campus emergency is minimal, students are encouraged to familiarize themselves with various emergency alerts and evacuation procedures in case of emergency. University alerts and guidelines are available at: <https://www.utm.edu/offices-and-services/public-safety/rave-alert-text-messaging-opt-in-procedures.php> (Emergency Response Plan at https://www.utm.edu/offices-and-services/environmental-health-and-safety/_media/Emergency%20Response%20Plan%20-%20MASTER_Media%20Version.pdf).

Non-Discrimination Statement: The University of Tennessee at Martin is an equal employment opportunity institution and does not discriminate based upon race, color, or national origin. The University's Office of Equity and Diversity has adopted a policy and procedures to provide students and employees, who feel that they have experienced discrimination but are uncertain as to whether a complaint is justified or whether they wish to initiate a formal complaint, the opportunity to discuss their concerns confidentially and informally with the Equity and Diversity Officer/Title VI Coordinator for prompt and equitable resolution of discrimination complaints.

All qualified applicants will receive equal consideration for employment and admission without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation,

gender identity, age, physical or mental disability, genetic information, veteran status, and parental status. In accordance with the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, the University of Tennessee at Martin affirmatively states that it does not discriminate on the basis of race, sex, or disability in its education programs and activities, and this policy extends to employment by the university. Inquiries and charges of violation of Title VI (race, color, and national origin), Title IX (sex), Section 504 (disability), the ADA (disability), the Age Discrimination in Employment Act (age), sexual orientation, or veteran status should be directed to the Office of Equity and Diversity, 544 University Street, #303, Martin, TN 38238, telephone 731-881-3505. The ADA Coordinator at the Office of Equity and Diversity can be found at <https://www.utm.edu/offices-and-services/office-of-equity-and-diversity/>.

Useful Resources:

The **Hortense Parrish Writing Center** (<https://www.utm.edu/offices-and-services/hortense-parrish-writing-center/>) offers free, non-credit, tutorial instruction to UTM students who need help with any stage of the writing process, including brainstorming, outlining, organization, drafting, revision, research, creative writing, source citation, and grammar. Walk-in and virtual tutoring appointments (via Zoom) are available, so feel free to stop by their office located at 209 Andy Holt Humanities Building, or send them a virtual-tutoring appointment request (owl@utm.edu). Questions can be sent to the same email address or you can call (731) 881-7277.

The Paul Meek Library (<https://www.utm.edu/academics/library/>) is an excellent resource for students with skilled staff available to help students find what they need.

In addition to your department faculty advisor, the University offers Student Support Resources (<https://www.utm.edu/offices-and-services/student-success-center/transfer-student-support-services.php>), including help and information on registration, fees, financial aid, and student health and counseling services. You are welcome to talk with your faculty advisor or any instructor regarding issues you may be facing.

Lauren's Promise: I will listen and believe you if someone is threatening you.

Lauren McCluskey, a 21-year-old honors student athlete and the daughter of my PhD committee chair, was murdered on Oct. 22, 2018, by a man she briefly dated on the University of Utah campus. We must all take action to ensure that this never happens again.

If you are in immediate danger, call **911** or the appropriate emergency services number for your area.

If you are experiencing sexual assault, domestic violence, and/or stalking, please report it to me and I will connect you to resources or call the Tennessee Domestic Violence Hotline at (800) 356-6767, WRAP (Women's/Men's Resource and Rape Assistance Program) at (800) 273-8712, or Pathways Crisis Hotline (800) 372-0693.

Any form of sexual harassment or violence will not be tolerated at the University of Tennessee at Martin. UTM has instituted procedures to respond to violations of these laws and standards, programs aimed at the prevention of such conduct, and intervention on behalf of the victims.***

UTM police officers will treat victims of sexual assault, domestic violence, and stalking with respect and dignity. Confidentiality is of the utmost importance and UTM police will assist by providing resources to victims. In addition to its law enforcement efforts regarding sexual assault, domestic violence, and stalking, UTM police refer victims to the appropriate university and/or local community counseling and other resources devoted to assisting victims.

Advocates help survivors determine their own needs in regards to their physical and emotional health, reporting options, and academic concerns. They connect survivors to campus and community services, and provide accompaniment to important appointments (court, hospital, and police) and support throughout the process. UTM police can also connect you with advocacy services, if desired. A local advocacy group is <https://www.tnvoicesforvictims.org/>.

Other confidential resources include UTM [Student Health and Counseling Services](#). Information shared with UTM counselors will not be provided to UTM police without expressed permission from you. If you are an online student and cannot arrange counselling services at the UTM campus, I would be happy to help you gain access to similar services in your area.

AGEC445 TOPICS WITH READINGS

I. Introduction to Economics and Environmentalism

- 1) Economic Overview
 - Required Readings:
 - Backhouse and Medema (2009)
 - Kenton (2023)
 - Optional Readings
 - Sissors (1966)
- 2) History of Environmentalism in America
 - 2.1 A Brief History of Environmentalism
 - Required Readings:
 - Weyler (2018)
 - Excerpts from Aristotle (1970)
 - Excerpts from Plinius (Secundus) (1991)
 - 2.2 Early American Environmentalists
 - Required Readings:
 - Leopold (1949)
 - Optional Readings:
 - Excerpts from Thoreau (1854)
 - Muir (1897)
 - 2.3 Rebirth of Environmentalism
 - Required Readings:
 - Excerpts from Carson (1962)
 - Wilson (2002)
- 3) Development of economics and environmentalism
 - 3.1 Population Growth and the Threat of Scarcity
 - Required Readings:
 - Excerpts from Sabin (2013)
 - Optional Readings:
 - Excerpts from Malthus et al. (2018)
 - 3.2 Economists to the Rescue
 - Required Readings:
 - Excerpts from Scorse (2010)
 - Fullerton and Stavins (1998)
 - Optional Readings:
 - Venkatachalam (2007)

II. Economics and Basic Applications

- 4) Decision-Making Metrics, Measurement and Economic Valuation
 - 4.1 Basic Decision-Making Metrics
 - Required Readings:

- Chapter 3 of Tietenberg and Lewis (2024)
 - 4.2 Measurement and Economic Valuation of the Environment and Natural Resources
 - Required Readings:
 - Chapter 4 of Tietenberg and Lewis (2024)
- 5) Property Rights and Other Topics in Environmental Justice
 - 5.1 Property Rights and Coasian Bargaining
 - Required Readings:
 - Coase (1960)
 - Berry et al. (2022)
 - 5.2 Environmental Justice and Equity
 - Required Readings:
 - Excerpts from Rawls (2005)
 - Excerpts from Collier (2008)
- 6) Policy
 - 6.1 U.S. Policy History
 - Required Readings:
 - Selected reading on the history of U.S. environmental policy
 - 6.2 Current U.S. Policy
 - Required Readings:
 - "Green New Deal" (2019)
 - 6.3 Future U.S. Policy
 - Required Readings:
 - Excerpts from Barbier (2010)

III. Topics and Applications I

- 7) Energy and Pollution (externalities discussion, switching costs, ...)
 - 7.1 History of Energy Use
 - Required Readings:
 - Oil: Selections from Yergin (1991)
 - Selected readings on coal
 - Selected readings on renewable energy generation
 - 7.2 Current Energy Use (transition dynamics, switching costs)
 - Required Readings:
 - Selected readings on current issues in energy generation
 - 7.3 Pollution (externalities, consumer vs. producer)
 - Required Readings:
 - Selected readings on pollution
 - Externalities
 - Consumer vs. Producer
- 8) Waste and Recycling
 - 8.1 Waste, Food Waste

- Required Readings:
 - Selected readings on waste, food waste, energy waste, municipal waste
- 8.2 Recycling
 - Required Readings:
 - Selected readings on recycling
 - Application from Chinese refusal to accept U.S. recycling and what has happened since
- 9) Water
 - 9.1 Economics and Uses
 - Required Readings:
 - Excerpts from Zetland (2014)
 - 9.2 Ownership
 - Required Readings:
 - Selected readings on water ownership rights
 - Instream flows
 - Riparian rights
 - Other rights mechanisms
 - Surface water vs. Groundwater
 - Selected reading on subsurface rights
 - 9.3 Conflicts/Crises
 - Required Readings:
 - Find selected readings from Barnett (2011)
 - Selected readings on water conflicts, crises, future issues of access, etc.

IV. Topics and Applications II

10) Parks and Recreation

- 10.1 Public Resources and National Parks/Monuments
 - Required Readings:
 - Selected readings about public resources
 - Selected readings about national parks and preserved land
 - Selected readings about land use, possibly
- 10.2 Applications
 - Required Readings:
 - Selected readings about the valuation of national parks for recreation
 - Selected papers about disputes (Bears Ears)

11) Food and Agriculture

- 11.1 Issues of Production
 - Required Readings:
 - Excerpts from Pollan (2006)
 - Selected readings on agricultural production practices
- 11.2 Technology (GMOs, monoculture, biotechnology)
 - Required Readings:

- Excerpts from Jenkins (2017)
 - Selected readings on agricultural biotechnology, capabilities, risk, and acceptance/rejection
- 11.3 Food Access, Equity, and Sustainability
 - Required Readings:
 - Selected readings on food access
 - Selected readings on justice and equity in food
 - Selected readings on agricultural sustainability
 - Optional Readings:
 - Excerpts from Kimmerer (2015)
- 12) Wildlife Management and Invasive Species
 - 12.1 Wildlife Management and Dynamic Optimization
 - Required Readings:
 - Selected readings on dynamic optimization
 - Selected readings on application of economic management practices
 - Selected readings on Tennessee wild hogs
 - Required Readings:
 - Selected readings on insects (maybe pine beetles)
 - Selected readings on plants (kudzu and more recent)
 - Excerpts from Taylor (2017)

Potential Alternative Topics/Readings:

- 13) Forestry and Fire
 - Samuelson (1976)
 - Selected readings from MacLean (1992)
 - Selected readings from Johnson (2021)
- 14) Topics in Sustainability
 - Aquaculture
 - Environmentalism and Marketing (CSR)
- 15) Climate change issues
- 16) Land Use
- 17) Soil Conservation
- 18) Aquaculture

References

- Aristotle. (1970). *Aristotle's Physics. Books 1 & 2*. Clarendon P.
- Backhouse, R. E., & Medema, S. G. (2009). Retrospectives: On the Definition of Economics. *The Journal of Economic Perspectives*, 23(1), 221-234.
<http://www.jstor.org/stable/27648302>
- Barbier, E. B. (2010). *A Global Green New Deal: Rethinking the Economic Recovery*. Cambridge University Press.
- Barnett, C. (2011). *Blue Revolution: Unmaking America's Water Crisis*. Beacon Press.
- Berry, K., Delmond, A. R., Chassé, R. M., Strandholm, J. C., & Shogren, J. F. (2022). A bargaining experiment under weak property rights, with implications for indigenous title claims. *Ecological Economics*, 198, 107457.
- Carson, R. (1962). *Silent Spring* (50th Anniversary Edition ed.).
- Coase, R. H. (1960). The problem of social cost. *The journal of Law and Economics*, 3, 1-44.
- Collier, P. (2008). *The Bottom Billion*. Oxford University Press.
- Fullerton, D., & Stavins, R. (1998). How Economists See the Environment. *Nature*, 395, 433–434. <https://doi.org/10.1038/26606>
- Jenkins, M. (2017). *Food Fight: GMOs and the Future of the American Diet*. Avery.
- Johnson, L. (2021). *Paradise: One Town's Struggle to Survive an American Wildfire*. Crown Publishing Group.
- Kenton, W. (2023, September 30, 2023). *Market: What It Means in Economics, Types, and Common Features*. Retrieved December 20, 2023 from <https://www.investopedia.com/terms/m/market.asp>
- Kimmerer, R. W. (2015). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*. Milkweed Editions.
- Leopold, A. (1949). The Land Ethic. In *A Sand County Almanac*. Ballantine Books.
- MacLean, N. (1992). *Young Men and Fire* (25th Anniversary Edition ed.). University of Chicago Press.
- Malthus, T. R., O'Flaherty, N., Valenze, D., Wrigley, E. A., Binmore, K., & O'Brien, K. (2018). *An Essay on the Principle of Population: The 1803 Edition*. Yale University Press.
<http://www.jstor.org/stable/j.ctv1bvnf95>
- Muir, J. (1897). The American Forests. *Atlantic Monthly*, 80(478), 145-157.
- Plinius (Secundus), G. P. t. E. (1991). *Natural History: A Selection* (J. F. Healey, Trans.). Penguin Classics.
- Pollan, M. (2006). *The Omnivore's Dilemma: A Natural History of Four Meals*. Penguin Press.
- Rawls, J. (2005). *A Theory of Justice*. Belknap Press.
- Recognizing the duty of the Federal Government to create a Green New Deal, H. Res. 109, House of Representatives (2019). <https://www.govinfo.gov/app/details/BILLS-116hres109ih/related>
- Sabin, P. (2013). *The Bet: Paul Ehrlich, Julian Simon, and Our Gamble over Earth's Future*. Yale University Press.
- Samuelson, P. (1976). Economics of forestry in an evolving society *Economic Inquiry*, v. In: XIV.
- Scorse, J. (2010). *What Environmentalists Need to Know About Economics*. Palgrave Macmillan.
- Sissors, J. Z. (1966). What Is a Market? *Journal of Marketing*, 30(3), 17-21.
<https://doi.org/10.2307/1249085>

- Taylor, R. B. (2017). *On Wild Hogs and Javelinas: History, Biology, Management, and Hunting*. Safari Press.
- Thoreau, H. D. (1854). *Walden; or, Life in the Woods*. Ricknor and Fields.
- Tietenberg, T., & Lewis, L. (2024). *Environmental and Natural Resource Economics* (12th ed.). Routledge.
- Venkatachalam, L. (2007). Environmental economics and ecological economics: Where they can converge? *Ecological Economics*, 61(2), 550-558.
<https://doi.org/https://doi.org/10.1016/j.ecolecon.2006.05.012>
- Weyler, R. (2018, January 5, 2018). *A Brief History of Environmentalism*. Greenpeace.
<https://www.greenpeace.org/international/story/11658/a-brief-history-of-environmentalism/>
- Wilson, E. O. (2002). Afterword. In *Silent Spring* by Rachel Carson. Mariner Books.
- Yergin, D. (1991). *The Prize: The Epic Quest for Oil, Money, and Power*. Free Press.
- Zetland, D. (2014). *Living with Water Scarcity*. Aguanomics Press.