

University of Missouri
Econ 4356-01/7356-01 online
Economics in the Digital Era
Fall Semester 2025

Economics 4356-01/7356-01 meets Tuesdays and Thursdays 9:30AM – 10:45AM CT online via Zoom.

This is a live synchronous class – students are expected to participate in the live scheduled Zoom classes with their videos on. Log-ins with video off do not count towards class participation.

Instructor: Robert Hazel, rahvzr@missouri.edu, cell: 571-723-3515

Teaching assistant: Andrew DeVenney, ard8t7@missouri.edu, cell: 816-527-7464

Office hours: I will stay online at the end of each class for anyone with questions or comments. Also, please don't hesitate to request a Zoom meeting.

Course description: From what we watch, to whom we meet, to how we find out next job, platforms such as Facebook, Amazon, Google, and LinkedIn have come to play a role in almost every decision we make. Along the way, these platforms have become the most valuable companies in the world. This course compares the economics of the digital era with that of the “old economy.” How do information goods differ from physical goods? How do digital markets compare with traditional markets? How are property rights created and maintained in the digital economy? How does competition differ? What is the role of personal data and privacy?

Credit Hours: 3

Prerequisite: Econ 3251 or 4351 (or equivalent).

Course objective and learning outcome: Gain familiarity with principles of economics applicable to digital markets.

Required text: None. Articles and other material will be posted on Canvas or available online.

Grading:

Two exams:	44% (Each exam is worth 22%)
Class participation:	22% (attendance and two short PPT presentations)
Paper:	24% (draft & final)
AI assignment(s)	10%

In determining your raw score for the course, do not rely on the Grade Total column in Canvas because it may not weight assignments correctly. Take the raw scores from Canvas and then weight them based on the syllabus weightings.

Final course grades will be assigned to undergraduates as follows:

98-100+	A+
93-97	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
59 and lower	F

The graduate school grading scheme does not include D grades. Note that a 97.9 is not a 98. The minimum grade average for an A+ is 98.0.

I reserve the right to raise the grade of students who make a substantial contribution to class discussions.

Monitoring of grades on Canvas: Students are responsible for monitoring their grades on Canvas and for promptly reporting any discrepancies between the grade they think they received on an assignment and the grade reported on Canvas. Complaints received more than two weeks after the relevant grade is posted will not be investigated, nor will the relevant grade be changed.

Important Dates:

AI assignment is due	Thurs, Sept 18
Exam 1:	Tuesday, Oct 7 – during class
Draft Paper is due:	Tues, Nov 4
Final paper is due	Thurs Nov 20
Exam 2:	Thursday, Dec 11 – during class

Exams will be held during the scheduled class time and taken on Canvas using the university's online proctoring system. Exams are closed book, except that everyone is allowed to use a cheat sheet consisting of a single 8-1/2 x 11 sheet on which you can write or print anything you want on both sides of the sheet. An unexcused absence from an exam will receive a score of 0 on that exam. In limited cases, with sufficient justification, we will try to accommodate requests to reschedule exams.

Participation: Two components

PPT Presentations: 12 points – During the semester, each student will make two short PowerPoint presentations to the class summarizing articles they have chosen from a list of over 100 articles and book excerpts posted on Canvas. The articles range from academic papers to news articles. News articles (typically from the Wall Street Journal or New York Times) may be the

subject of no more than one of each student's two presentations.

Class participation: 10 points – Class participation will be based on video-on participation during Zoom class sessions. Students are expected to participate with their videos on and should expect to be called on. All students start with 10 participation points and get three “free” class absences. After that, one point is deducted for each unexcused absence. **As noted, log-ins with video off do not count towards class participation.**

AI assignment: Students will use one of the freely available LLMs to do a small project such as preparing for a job interview, answering a consulting case interview question, answering a law exam question, analyzing a company, analyzing a problem in digital economics, etc. Prompts and final output will be submitted on Canvas. Details will be provided in class.

- Late AI assignments – 1 point/day deduction.

Paper: Students will write and revise a “reaction” paper – submitting draft and final versions of each.

- A reaction paper is an economic analysis of a topic in digital economics. You should choose a subject that you find interesting.
- You must obtain prior approval of your topic by emailing me. I will respond promptly.
- The title or subtitle of your papers will be “An Economic Analysis of [the topic you choose].”
- Your introduction should introduce the subject, explain why it is important or interesting, and state the paper's purpose (which could be as simple as restating the title).
- I am looking for a short explanation of the subject, including a summary of different perspectives if applicable, and then your own analysis and opinion. You should write your reaction papers with the thought that I am the audience, so you do not need to define basic terms and concepts.
- You should write your paper as a traditional research paper with an introduction, body, and conclusion. Stronger papers tend to focus on narrow topics over general topics, take a well-defined position, almost always incorporate statistics and quotes, and sometimes incorporate the writer's own experience/expertise.
- Economics papers should include some discussion of incentives, consequences, marginal benefits/marginal costs, or economic efficiency.
- I will provide written comments on your draft paper, and you will have time to consider those comments in making revisions before submitting your final paper.
- Reaction papers must be at least 1,500 words (approximately five pages), excluding any tables, graphs, or references. For Econ 7356 students, the paper must be a minimum of 2,400 words (about 8-10 double-spaced pages).
- Papers must include in-text citations and a reference list. You should use standard social science conventions for citations and references. For example, use (last name, year) in the text and include the full reference in a list at the end of your paper.

- Reaction papers should be well-structured, well-written, and free of spelling and grammatical errors. Poorly written papers will receive a low grade. You are encouraged to have your paper reviewed outside of class by a peer or by a Tutor at the Writing Center.
- Draft reaction papers need not be the full length of the final paper but must: (1) include in-text references; (2) be at least 1,200 words; and (3) reflect substantial effort. Drafts will not receive a separate grade, but up to six points (out of the maximum of 24 points) will be deducted from the final grade if the draft does not meet these requirements.
- Late papers – Papers are graded on 24-point scale. Late drafts – 1 point/day deduction. Late final papers – 3 points/day deduction.
- Primary paper grading criteria: (1) quality of economic analysis, and (2) quality of writing. In addition, students are encouraged to pick challenging and creative topics.

AI Use: Learning to use AI responsibly and ethically is an important skill.

You should assume AI-generated output is wrong unless you cross-check it with reliable sources. Pasting AI results wholesale into your document is likely to result in serious errors.

You are responsible for fact-checking all AI output and you bear full and final responsibility for any errors or omissions. If you submit a paper containing fictional sources, fictional quotations, or other fictional content, your actions will be in violation of academic integrity policies and subject to the sanctions below.

The use of generative AI tools **is permitted** in this course for the following activities:

- Brainstorming and refining your ideas
- Fine tuning your research questions
- Identifying researchers who have written about your topic – BUT THEN you should use a conventional search engine, such as Google or Google Scholar, to find papers/articles.
- Checking grammar and style (Do not use for extensive rewriting!)

The use of generative AI tools **is not permitted** in this course for the following activities:

- Writing a draft or final version of a writing assignment
- Writing entire sentences or paragraphs

Except as provided above, all other uses are prohibited without the prior consent of the instructor.

AI Disclosure: All uses of AI must be disclosed, and you may not submit any work generated by an AI program as your own. Failure to comply is a violation of academic integrity policies and will be subject to the sanctions below. Your disclosure statement should be located along with your references, and should be in a form similar to the following:

If you used AI:

“AI Disclosure Statement: During the preparation of this work, I used [e.g., ChatGPT] to [e.g., identify scholars in the field of AI in fintech]. After using this tool, I reviewed

and edited the content as needed and I take full responsibility for the content of this paper.”

If you did not use AI:

“AI Statement: I did not use AI in researching or writing this paper.”

Apart from the required AI Disclosure, APA, MLA, and Chicago have guidelines for citing any AI-generated content. See, e.g.,

[APA - AI Disclosure](#)

[MLA - AI Disclosure](#)

[Chicago - AI Disclosure](#)

Instructor Review: The instructor reserves the right to discuss your paper submission with you before posting grades for the paper. You may be asked to walk through your writing process so that the instructor can probe your understanding of the concepts presented in your paper, your reasoning underlying specific arguments, and your research approach. The purpose of this discussion is to help the instructor ensure that your paper reflects your own original thought, analysis, and writing.

Sanctions and Applicability.

- Sanctions for violation of these AI policies may include receiving a grade of F or 0 on the work submitted, as well as referral to the Academic Integrity Office.
- These AI policies apply to all written work submitted, including drafts.

Class outline: We will generally follow the outline below. Readings are posted on Canvas. Classes will consist of a lecture along with student presentations summarizing articles they have chosen. The first exam will cover material from the first five or six units.

1. Introduction – Digital economics, and the digital economy
 - Digital Economics – Goldfarb, J. Econ. Lit. 2019 (skim and come back to later in the course)
 - Government and Economics in the Digital Economy – Spence, J. Gov. & Econ. 2021
2. Information goods; network effects, and externalities
 - How Digitization Is Changing Everything, Ch. 14 in Economics for the Common Good – Tirole 2016
 - Important Features of the Digital Business Environment – SCDP, pp 34-43
3. Platform economics
 - Overview of Network Effects & Platforms in Digital Markets – Yun, The Global Antitrust Institute Report on the Digital Economy, 2020
 - Platforms: Definitions and Typology, in Economics of Platforms - Belleflamme 2019
4. Market power and pricing
 - How Big Data Affects Digital Products and the Sale of Advertisements – SCDP, pp 44-56

Personalized Pricing in the Digital Era – OECD 2018

5. Case studies
 - How Digitization Has Created a Golden Age of Music, Movies, Books, and Television – Waldfogel, JEP 2017
6. Property rights in the digital era – Intellectual property, and digital property rights
 - Where Do Property Rights Come From? – Anderson 2013
 - We Need Smart Intellectual Property Laws for Artificial Intelligence – Love, Sci. Amer. 2023
 - Privacy Is Not a Property Right in Personal Information – McCarthy 2018
7. Digital costs/harms – Misinformation, mental health, and cognitive offloading
 - Is AI Rewiring Our Minds? – Ovalie, WP June 2025
 - The Displaced, excerpt from Superbloom – Carr 2025
8. Labor and technology
 - Labor, excerpt from The Coming Wave – Suleyman 2023
 - Historical Impacts of Technology, excerpts from The Technology Trap – Frey 2019
9. Innovation and productivity
 - Harm to Innovation– SCDP, pp 74-78
 - America is sleepwalking into an economic storm – Acemoglu, NYT Oct 2024
10. Privacy economics, disclosure economics
 - The Economics of Digital Privacy, read selectively, especially Intro and Section 4 Externalities – Goldfarb and Que, Ann. Rev. Econ 2023.
11. Competition law and economics, and technology regulation
 - US Antitrust – SCDP, pp 81-95
12. Trust in the digital era – Reputation and ratings
 - The Trust Revolution, The Digitization of Trust – Henderson and Churi 2019
13. Special topics

ADMINISTRATIVE MATTERS

Academic Integrity

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor or the [Office of Academic Integrity](#).

Students are expected to adhere to this honor pledge on all graded work whether or not they are explicitly asked in advance to do so: "I strive to uphold the University values of respect, responsibility, discovery, and excellence. On my honor, I pledge that I have neither given nor received unauthorized assistance on this work."

Academic Inquiry, Course Discussion, and Privacy

When students record something that happens in a course (a lecture, class discussions, meetings, etc.) it has an impact on the rights of the people captured in that recording. For example, the instructor and the University may have rights to the intellectual property contained in that recording. At the same time, another student who may have been recorded has the right to privacy. In order to protect these rights, MU employs a policy (called "[Executive Order No. 38](#)") to govern both situations you may encounter while taking a course – when an instructor allows recordings and when they do not.

In this class, students may make audio or video recordings of course activity unless specifically prohibited by the faculty member. However, the redistribution of audio or video recordings of statements or comments from the course to individuals who are not students in the course is prohibited without the express permission of the faculty member and of any students who are recorded.

Students who violate this policy are subject to discipline in accordance with provisions of [section 200.020](#) of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

FERPA

The [Family Educational Rights and Privacy Act](#) (FERPA) of 1974 is a federal law designed to protect the privacy of educational records; to establish the rights of students to inspect and review their education records; and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. The law applies to any individual who is or has been in attendance at an institution *and* regarding whom the institution maintains

educational records. Once students have matriculated to the University of Missouri, i.e. enrolled in course work, FERPA rights transfer to the student, regardless of the student's age.

Students can enable certain individuals to have access to their education records by signing a [FERPA waiver](#). The consent must specify records to be disclosed, state the purpose of the disclosure and identify the party or class of parties to whom the disclosure must be made.

Intellectual Pluralism

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the departmental chair or divisional director, the [Office of Academic Integrity](#), or the [MU Office of Institutional Equity](#).

Mental Health

The University of Missouri is committed to supporting student well-being through an integrated network of care, with a wide range of services to help students succeed. The MU Counseling Center offers professional mental health care, and can help you find the best approach to treatment based on your needs. Call to make an appointment at 573-882-6601. Any student in crisis may call or go to the MU Counseling Center between 8:00-5:00 M-F. After hours phone support is available at 573-882-6601.

Visit our website at <https://wellbeing.missouri.edu/> to take an online mental health screening, find out about workshops and resources that can help you thrive, or learn how to support a friend.

Netiquette

Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Our differences, some of which are outlined in the University's nondiscrimination statement, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambiance.

Religious Holidays & Accommodations

Many religious faiths are represented in the student body. The University of Missouri does not restrict student free exercise of religion, unless 1) the restriction is in the form of a rule of general applicability and does not discriminate against religion or among religions; and 2) it can be demonstrated that the application of the restriction is essential to furthering a compelling university interest, and is not unduly restrictive considering the relevant circumstance. The policy of the University attempts to strike a reasonable balance between accommodating the religious practice of students and meeting academic needs and standards.

Consult the [Guide to Religions](#) for the form that can be used to notify an instructor of an absence associated with religious practice. Students are expected to notify their instructor(s) by completing and submitting this form in a manner that is consistent with the procedure outlined in the university's policy on student religious accommodation. Providing false information regarding sincerely held religious practice is a violation of the university's Standard of Conduct and will not be tolerated.

Nondiscrimination Policy (Prohibited Discrimination)

The University of Missouri prohibits discrimination on the basis of race, color, national origin, ancestry, religion, sex,* sexual orientation, gender identity, gender expression, age, disability, veteran status, and any other status protected by applicable state or federal law. Discrimination includes any form of unequal treatment such as denial of opportunities, harassment, and violence.

*Including sex/gender and pregnancy discrimination; sexual assault; sexual harassment; dating/domestic violence; stalking; statutory rape; and incest. Retaliation for making or supporting a report of discrimination or harassment is also prohibited.

If you experience discrimination or sexual violence, you are encouraged (but not required) to report the incident to the MU Office of Institutional Equity. Learn more about your rights and options at equity.missouri.edu or call 573-882-3880. You also may make an anonymous report online.

If you are a survivor, or someone concerned about a survivor, and need immediate information on what to do, visit RSVP.missouri.edu. Both the [Office of Institutional Equity](#) and the [RSVP Center](#) can provide assistance to students who need help with academics, housing, or other issues.

In the event that you choose to write or speak about having experienced any of these forms of prohibited discrimination or harassment, Mizzou policies require that, as your instructor, I share this information with the MU Office of Institutional Equity. They will contact you to offer information about resources, as well as your rights and options as a member of our campus community.

Students with Disabilities

The goal of the University of Missouri is to ensure an inclusive learning environment for all students. [The University of Missouri Disability Center](#) provides services and accommodations for students to participate fully in the learning experience and to experience equitable evaluation of their performance. Students (including online students) with a documented disability can contact the Disability Center to establish an [Accommodation Plan](#). Documented disabilities include *hearing, vision, mobility, learning and attention, psychological health, and physical health*. Students' accommodations are implemented with the input of students to maximize the learning experiences. The MU Disability Center keeps information about a student's disability confidential.

Please notify me of your eligibility for accommodations as soon as possible. Additionally, if there are aspects of the course that present as barriers, such as inaccessible course content (e.g., learning assessments, PowerPoints, non-captioned videos, images, tables, PDFs) or if you need an immediate accommodation due to an injury, please contact me or the Disability Center as soon as possible.