

Economics 511: Public Goods and Market Failures (Public Economics I)

University of Illinois, Urbana-Champaign

Spring 2026

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Lecture: Tuesday and Thursday: 11:00a.m. to 12:20p.m. DKH 215

Office Hours: Wednesday, 11:00-11:50 am, Thursday, 1:00-1:50pm DKH 225A

Description:

- Examine the role of government in the economy, and how the market may fail to produce efficient or equitable outcomes.
- Improve historical and contemporary understanding of government role in providing defense, infrastructure, education, pensions, health care, unemployment insurance, etc.
- Overview government budgets at local, national and international levels.
- Deepen understanding of how decentralized individual behavior in markets affects economic outcomes, through the lenses of optimization and equilibrium.
- See how information problems challenge the ability of government to make effective policy and see when markets can help.
- Consider the welfare effects of different policies and the influence of political forces.
- The course will have a strong theoretical component based on economic theory, as well as some philosophical content related to science and ethics. I include both

Prerequisites: Master's level microeconomics and statistics (e.g., ECON 500 & 502).

Grading

30% Six assignments, each worth 5%: (Feb 17, Mar 3, Mar 24, Apr 7, Apr 21, May 5)

- 5% A good effort with mostly correct answers
- 4 A fairly good effort with many correct answers
- 3 A poor effort with many mistakes
- 2 A very incomplete assignment
- 1 A sheet with your name on it and the assignment number
- 0% Missing or late - *please hand in whatever you have!*

30% Midterm exams (in class Mar 12 & Apr 16)

40% Final exam (Tentatively, May 14, 7-10pm)

Exam will be based primarily on material taught in lecture. However, some questions may refer to material only explained fully in the required reading.

+5% Attendance and Participation

- Attendance will be taken *randomly* (not every day)
- Participation for asking questions/stimulating discussion in class or office hours.
- Pronouncing my last name correctly (in English, rhymes with "Illinois")

+?% Additional Extra Credit (To be determined)

Assignments, deadlines, and grades posted on the course website (Canvas). Greater information will also be provided in class, so be sure to attend. I reserve the right to stop posting slides if attendance falls – not attending class exerts a negative externality on other students so please show up.

Reading is a complement, not a substitute for lecture. This course is not “taught out of a book.” **Class attendance and taking detailed notetaking is essential.** Material not on the slides, either from the book or presented verbally, may be on quizzes, homework, and exams. In fact, these will stress subjects most discussed in class (not necessarily what is in the slides or book).

Laptop computers are **not** to be used in class. Please take notes on paper/notebook or a tablet.

Please contact me during the **first two weeks of class** by email to work out arrangements if you have any special needs. Except for documented illnesses and emergencies, **no special arrangements for examinations will be made after the second week of class.** Bring a picture ID to all examinations.

This class sometimes covers sensitive topics on inequality, race, gender, and other issues. Please let me know if you have needs or requests regarding family or health needs, pronouns, or anything else important to you. You are respected and valued in this class and will not be graded for political, religious, or moral beliefs – viewpoint diversity is welcome and encouraged. Personal attacks, harassment, and bullying are not. You are welcome to come to office hours to chat not only about class, but your aspirations in academia, career, life, and intellectual journey.

Unlike many of the instructors you have had thus far, I am a tenured research-oriented professor. Much of my time is spent engaging in research activities including publishing, peer-review, academic conferences, advising doctoral students, and mentoring junior faculty. This means that I may share with you some of my own published findings, as well as what is currently being discussed. Also, I can provide you with more of an insiders’ view of the research in urban economics. If you are interested in pursuing economics to a higher level, I can advise you on graduate programs or research assistantship when you graduate – do not delay.

Required Reading (a complement with, not a substitute for, lecture!)

Jonathan Gruber, *Public Finance and Public Policy* (Institutions, empirics, and basic theory)

John Leach, *A Course in Public Economics*. (More advanced theory)

Jean Hindriks and Gareth D. Myles, *Intermediate Public Economics*

Additional readings – typically notes and journal articles – will be posted online

Additional References

Edward M. Gramlich, *A Guide to Benefit-Cost Analysis*, Second Edition.

Walter Nicholson, *Microeconomic Theory: Basic Principles and Extensions*

COURSE OUTLINE (26 lectures + 1 review session + 2 midterms + final)

Attend all classes! All lecture times are approximate. Some topics may be dropped if time is short.

1) Introduction to Public Economics and Its Past, Present, and Future (6 Lectures)

- 1/20 Introduction: Definition and scope of public economics; positive & normative analysis.
- 1/25 A brief history of the public sector
- 1/27 Overview of federal, state, and local budgets; international comparisons.
Deficit and debt dynamics, generational accounts, and long run prospects.
- 2/3 The growth of the public sector and debt dynamics
- 2/7 Theories of the public sector: size and excess

Reading: Gruber Ch 1, 3 and 4; Leach Ch 1; H&M Ch 1, 4, 5.

2) Market Success and Failure: Competitive Equilibrium and Welfare (4 Lectures)

- 2/10 Cardinal, ordinal, and intercomparable utility; utility possibility sets, social welfare.
Pure exchange economy and planner's problem. Pareto efficiency; the equity-efficiency tradeoff. Social welfare functions
- 2/12 Market equilibrium; First and Second Fundamental Theorems of Welfare Economics
- 2/17 Simple production economy. Production possibility frontiers. Firm profit maximization and supply functions. 2z2 production economy. Community indifference curves.
Consumption, production, and match efficiency.
- 2/22 Consumer and producer surplus, deadweight loss. The use of knowledge in society
Socialist-calculation debate.

Reading: Gruber, Ch 2 (including Appendix); Leach Ch 2, 3, 4, 5; H&M Ch 2, 13.1-3,7, 9-11;

3) Increasing Returns to Scale & Imperfect Competition; Subsidies & Taxation (3 Lecture)

- 2/24 Marginal versus average cost; minimum efficient scale, monopoly pricing, natural monopoly; problems with pricing intellectual property
- 2/26 Subsidies versus lump-sum transfers. Partial equilibrium model of tax and subsidy incidence.
- 3/3 Deadweight-loss of taxation and monopoly. Public-sector pricing.

Reading: Leach Ch 14, 15.1-2, 16.1.,17, H&M Ch 8, 15.1-2

*****1st Midterm Exam on above material, scheduled in class on Thu, Mar 12 ******

4) Externalities and Public Goods (4 Lectures)

- 3/5 Positive and negative externalities; free-riding, common resource, and coordination problems. Pigouvian taxation.
- 3/10 Quantity and price regulation; pollution tax vs. tradable permits
- 3/24 The Coase Theorem, hold-up and assignment problems. Pure and impure public goods
- 3/26 Nash equilibrium and strategic inefficiencies, Strategic complements and substitutes.
Samuelson's Rule.

Reading: Gruber, Ch 5, 6, 7; Leach Ch 6, 7, H&M Ch 6,7,8

Spring Break

5) Asymmetric Information (2 lectures)

- 3/31 Hidden actions, adverse selection and the market for lemons; Insurance markets with imperfect competition
- 4/2 Hidden types and moral hazard

Reading: Gruber, H&M 10

6) Cost-Benefit Analysis and Valuation Techniques (2 Lectures)

- 4/7 Hicks-Kaldor compensation principle; stated preference and contingent valuation;
- 4/9 Revealed preference; hedonic methods, and compensating differentials; Shadow prices the value of time, safety, human life, and cleaner air. Quality of life measurement.

Reading: Gruber, Ch 8; Gramlich

*****2nd Midterm Exam on above material, scheduled in class on Thu, Apr 16 ******

7) Social Choice, Political Economy, and Rent Seeking (3 Lectures)

- 4/14 Lindahl Pricing, Majority voting, Condorcet's Paradox; Arrow's Impossibility Theorem
- 4/21 Median voter theorem, Electoral competition, polarization, Citizen-candidate model.
- 4/23 Rent-seeking, lobbying and special interests; Complete and Partial Dissipation Theorem

Reading: Gruber Ch 9, H&M Ch. 11.12

8) Local Public Economics and Education (2 Lectures)

- 4/28 Advantages and disadvantages of federal systems; intergovernmental grants. (e.g. matching, block), flypaper effect. The Tiebout model of local public goods, sorting, and benefit taxation; fiscal zoning
- 4/30 School finance, school choice and vouchers, private and social return to education;

Reading: Gruber Ch 10, 11; Leach Ch 12. H&M Ch 19, 20

5/5 Final Exam Review

****CUMULATIVE Final Exam on ALL of the above, Thu, May 14, 7-10pm****

Campus Policies

Academic Assistance

Students are encouraged to utilize the many resources we have throughout campus to assist with academics and visit the [Connie Frank CARE Center](#). We recommend that you seek them out starting early in the semester, not just in times of academic need, in order to develop good study habits and submit work which represents your full academic potential. Many resources are found on the Economics Website including details about the Economics Tutoring Center, Academic Advising, and other academic support options: <https://economics.illinois.edu/academics/undergraduate-program/academic-student-support>

Academic Integrity

According to the Student Code, “It is the responsibility of each student to refrain from infractions of academic The University of Illinois Urbana-Champaign *Student Code* should also be considered as a part of the syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>.

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy: <https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

Students with Disabilities

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor as soon as possible and provide the instructor with a Letter of Academic Accommodations from Disability Resources and Educational Services (DRES). To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class should apply for services with DRES and see the instructor as soon as possible. If you need accommodations for any sort of disability, please speak to me after class, or make an appointment to see me or see me during my office hours. DRES provides students with academic accommodations, access, and support services. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 217-333-1970, e-mail disability@illinois.edu or visit the DRES website at <https://dres.illinois.edu/>. Here is the link for information to apply for services at DRES, <https://dres.illinois.edu/information-before-you-apply/application-process/>.

Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self- identify to the instructor to ensure protection of the privacy of their attendance in this course. See <http://registrar.illinois.edu/ferpa> for more information on FERPA. Student information and records will not be released to anyone other than the student unless the student has provided written approval or as required by law.

Mental Health

Significant stress, mood changes, excessive worry, substance/alcohol misuse or interferences in eating or sleep can have an impact on academic performance, social

development, and emotional wellbeing. The University of Illinois offers a variety of confidential services including individual and group counseling, crisis intervention, psychiatric services, and specialized screenings which are covered through the Student Health Fee. If you or someone you know experiences any of the above mental health concerns, it is strongly encouraged to contact or visit any of the University's resources provided below. Getting help is a smart and courageous thing to do for yourself and for those who care about you.

Counseling Center (217) 333-3704

McKinley Health Center (217) 333-2700

National Suicide Prevention Lifeline (800) 273-8255

Rosecrance Crisis Line (217) 359-4141 (available 24/7, 365 days a year)

If you are in immediate danger, call 911.

Community of Care

As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (217-333-0050 or <http://odos.illinois.edu/community-of-care/referral/>). Based on your report, the staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe.

Further, as a [Community of Care](#), we want to support you in your overall wellness. We know that students sometimes face challenges that can impact academic performance (examples include mental health concerns, food insecurity, homelessness, personal emergencies). Should you find that you are managing such a challenge and that it is interfering with your coursework, you are encouraged to contact the [Student Assistance Center \(SAC\)](#) in the Office of the Dean of Students for support and referrals to campus and/or community resources.

Disruptive Behavior

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office for Student Conflict Resolution (<https://conflictresolution.illinois.edu>; conflictresolution@illinois.edu; 333-3680) for disciplinary action.

Emergency Response Recommendations

Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency-preparedness/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class. <http://police.illinois.edu/emergency-preparedness/building-emergency-actionplans/>.

Religious Observances

It is the policy of the University of Illinois Urbana-Champaign to reasonably accommodate its students' religious beliefs, observances, and practices that conflict with a student's class attendance or participation in a scheduled examination or work

requirement, consistent with state and federal law. Students should make requests for accommodation in advance of the conflict to allow time for both consideration of the request and alternate procedures to be prepared. Requests should be directed to the instructor. The Office of the Dean of Students provides an optional resource on its [website](#) to assist students in making such requests.

Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX and Disability Office. In turn, an individual with the Title IX and Disability Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options. A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: <http://www.wecare.illinois.edu/resources/students/#confidential>.

Other information about resources and reporting is available here: <http://wecare.illinois.edu/>.

Veterans and Military Students

As a military-friendly institution, and per federal regulations and Illinois statutes, the University of Illinois Urbana-Champaign has established policies and procedures to accommodate military-connected students. In addition to the support available at the Chez Veterans Center (<https://chezveteranscenter.ahs.illinois.edu/>), members of the National Guard or Reserves and active-duty military personnel with military obligations (e.g., deployments, training, drills) are encouraged to communicate these, in advance whenever possible, to the instructor. The policy for Excused Absences and Departure from the University for U.S. Military or other U.S. National Defense Services can be found at <https://studentcode.illinois.edu/article3/part3/3-313>.

Academic Dates and Deadlines

Students should make note of important academic deadlines for making changes to their courses (add, drop, credit/no-credit, grade replacement, etc.). <https://registrar.illinois.edu/academic-calendars>