

## **ECON 309: PUBLIC FINANCE**

Spring 2024

TuTh 3:30 PM – 4:50 PM, Harris Hall L07

Dr. Jeffrey T. Lewis (ECON)

Kellogg Global Hub 3475, 847-491-8238

jeffrey.lewis@northwestern.edu

Office Hours: will be posted weekly/ (or by appointment)

### **TEACHING ASSISTANT**

TA Seung Hyeong Lee (seunghyeong.lee@u.northwestern.edu)

TA office hours and locations will be posted on Canvas.

### **COURSE OBJECTIVES**

In this class, students will increase their knowledge of public finance (the study of the role of the government in the economy). Public finance addresses four main questions. When should the government intervene in the economy? How might the government intervene? What is the effect of those interventions on economic outcomes? Why do governments choose to intervene in the way that they do?

### **COURSE WEBSITE**

This course has a website on Canvas. Everyone should automatically be enrolled in the Canvas website upon official enrollment in the class. I will post my lecture notes on the website by 5:00 pm the day before class. You should print out the materials and bring them to class. Problem sets, problem set solutions, and other materials will also be posted on the website. I will post announcements on the website stating what you should print out for class and when assignments are due.

### **COURSE MATERIALS**

The textbook for the course is *Public Finance and Public Policy* (7<sup>th</sup> Edition) by Jonathan Gruber. Some sections of the textbook will be assigned for the exams. You don't need to buy the book because the relevant chapters will be posted on Canvas under Course Reserves. My lecture notes are based on Gruber's text and other sources. You will need a calculator and a ruler for the problem sets and exams.

### **PROBLEM SETS**

Some problem sets you will need to hand in in class (drawing budget constraints, graphical problems, etc.). Other problem sets you will submit online on Canvas (submit numerical answers or answer multiple choice questions). Canvas will automatically grade your submissions. If you miss the deadline for submitting your answers, you will not receive credit for that problem set. For questions about how to complete the Canvas problem sets, read the policy\_canvas\_psets handout on Canvas (under Policies folder).

### **OFFICE HOURS**

During office hours, you can't check over your problem sets. You can ask us questions about the course material or the section problems (or sample problems that we post).

### **SECTION WITH TA** (Friday 4:00-4:50 PM in Harris Hall L07)

I will post section problems on Canvas. You will print out the section problems and bring them with you to section. You don't have to solve the problems ahead of time. The TA will work through the solutions. The section problems will be similar to problems that you will encounter on the problem sets and exams. If I don't post section problems in a given week, then the TA will just hold office hours during the section time slot in the section classroom.

### **QUIZZES**

We will give quizzes during lecture this term (not during section). The default is that the quizzes will be unannounced. The quizzes are closed-note quizzes (can't use any of your notes or devices). Bring your calculator to every class. Make sure you keep up with the course material.

## EVALUATION

Grades are based on the following distribution:

Problem Sets and Quizzes together	10%
Exam #1	30%
Exam #2	30%
Exam #3 (cumulative, but not cover all handouts)	30%

None of your problem set scores will be dropped. We will drop your lowest quiz score. At the end of the term, we will do this calculation:

$$[(\text{your PS points} + \text{your quiz points}) / (\text{total PS points} + \text{total quiz points})] \times 100\%$$

This percentage score will constitute 10% of your final grade.

None of your exam scores will be dropped. You cannot use a formula sheet on any of the exams.

## EXAM DATES

Exam #1 will be given in class on Thursday, April 25.

Exam #2 will be given in class on Thursday, May 16.

Exam #3 will be given in class on Tuesday, May 28.

There will be no Final Exam given during the Final Exams week. Hence, the class ends on Tuesday, May 28. We won't hold office hours after May 28. We won't return Exam #3 or post the solutions/scores.

## EXCUSED ABSENCES

If you miss an exam (or quiz) for an excused reason, such as illness, a family emergency, or travel with a University sports team, then you need to fill out the excused absence form on Canvas, staple your documentation to the back of the excused absence form, and hand everything in to me during the next lecture after the exam. If you are feeling unwell, you should report in person to the Student Health Service or CAPS prior to the time of the exam. In the absence of documentation, an absence will be considered unexcused. If you miss an exam or quiz for an unexcused reason, you will receive a 0 on that assessment. Missing class for a job interview, a job-related activity, an internship interview, an internship-related activity, any activity related to another class, or a family event would not constitute an excused absence.

If you take an exam, or start to take an exam, can you receive an excused absence for that exam?

No. If you take an exam, or start to take an exam, you cannot receive an excused absence for that assessment. Your exam score will count, and it will be used to determine your final grade in the class. If you feel that you are too unwell to take the exam, do not take the exam. Instead, you should report in person to the Student Health Service or CAPS prior to the time of the exam.

## MAKEUP POLICIES

### Problem Sets

Since you do not have to be physically present in the classroom to submit your answers to the Canvas problem sets, there are no makeup Canvas problem sets. If you miss the deadline for submitting your answers, you will not receive credit for that problem set.

If, due to illness, you miss class when a problem set is due in class (physical copy), then fill out the excused absence form and bring your documentation to the next class. The default is that your missing problem set score will just be replaced with your Final Exam score. If you fail to turn in a problem set that is due in class for an unexcused reason, you will receive a 0 on that assignment.

**Quizzes**

We are going to drop your lowest quiz score. If you only miss one quiz and you miss that quiz because of an excused reason, that score will just be dropped. If you only miss two quizzes and you miss both quizzes for excused reasons, your first missing score will be dropped and your second missing score will be replaced with your Final Exam score. If you only miss two quizzes, and you miss one quiz for an excused reason and one quiz for an unexcused reason, your score from your excused absence will be dropped and your score of 0 from your unexcused absence will be counted.

**Exams**

If you miss Exam #1 or Exam #2 for an excused reason, you will not take a makeup. All of the weight from the missed exam will be added to Exam #3.

If you miss both Exam #1 and Exam #2 for excused reasons, then your final grade will be determined by whichever calculation is lower (method *a* or *b*):

a)  $100\% \times (\text{Problem Sets and Quizzes together})$

b)  $100\% \times \text{Exam \#3}$

**Incompletes**

If you take Exam #3, or start to take Exam #3, then you cannot receive an excused absence for that assessment. Your exam score will be recorded. You wouldn't qualify for an Incomplete.

If you miss Exam #3 for an excused reason (such as an illness or family emergency), then you would need to email me and then petition for an Incomplete through the Dean's Office.

To qualify for an Incomplete if you do not take Exam #3:

- 1) The Dean's Office would have to approve your Incomplete petition.
- 2) You would have to have taken either Exam #1 or Exam #2. (If you miss both Exam #1 (for any reason) and Exam #2 (for any reason), then you would not qualify for an Incomplete.)
- 3) It has to be possible for you to receive a final course grade of at least 63% if you take the makeup Exam #3.

If you receive an Incomplete, then you would take the makeup Exam #3 during finals week of the Fall 2024 term.

**GRADING POLICIES**

For questions on how to deal with rounding on problem sets and exams, read the policy\_rounding handout on Canvas (under Policies folder). If a grading mistake was made on your exam, you need to give me your exam during the lecture following the lecture in which the exams were initially returned.

**DETERMINING FINAL GRADES**

Grading Scale #1 (minimum course score needed to achieve listed grade):

D	C-	C	C+	B-	B	B+	A-	A
63	70	73	77	80	83	87	90	93

Grading Scale #2 (minimum course score needed to achieve listed grade):

D	C-	C	C+	B-	B	B+	A-	A
63	70	73	77	80	83	87	90.5	93.5

Grading Scale #3 (minimum course score needed to achieve listed grade):

D	C-	C	C+	B-	B	B+	A-	A
63	70	73	77	80	83	87	91	94

Grading Scale #4 (minimum course score needed to achieve listed grade):

D	C-	C	C+	B-	B	B+	A-	A
63	70	73	77	80	83	87	91.5	94.5

Grading Scale #5 (minimum course score needed to achieve listed grade):

D	C-	C	C+	B-	B	B+	A-	A
63	70	73	77	80	83	87	92	95

Final course scores will be calculated. Tentatively, Grading Scale #1 will be used. If less than 50% of the class receives an A or A- using Grading Scale #1, then Grading Scale #1 will be used to determine final grades. If 50% or more of the class receives an A or A- using Grading Scale #1, then Grading Scale #1 will not be used to determine final grades.

Next, tentatively, Grading Scale #2 will be used. If less than 50% of the class receives an A or A- using Grading Scale #2, then Grading Scale #2 will be used to determine final grades. If 50% or more of the class receives an A or A- using Grading Scale #2, then Grading Scale #2 will not be used to determine final grades.

Next, tentatively, Grading Scale #3 will be used. If less than 50% of the class receives an A or A- using Grading Scale #3, then Grading Scale #3 will be used to determine final grades. If 50% or more of the class receives an A or A- using Grading Scale #3, then Grading Scale #3 will not be used to determine final grades.

Next, tentatively, Grading Scale #4 will be used. If less than 50% of the class receives an A or A- using Grading Scale #4, then Grading Scale #4 will be used to determine final grades. If 50% or more of the class receives an A or A- using Grading Scale #4, then Grading Scale #4 will not be used to determine final grades. Instead, Grading Scale #5 will be used to determine final grades.

## **CLASSROOM POLICIES**

Do not have your phone out during class. Do not have your computer open during class. Shut down your computer before we start class. Do not put your head down on the desk during class. If you are feeling unwell, you should report in person to the Student Health Service or CAPS.

If, through ANU, you are permitted to use a computer or tablet to take notes during class, have ANU email me that information as soon as possible at the beginning of the term.

If you want to take notes in class on a tablet, that's fine. You can do so.

## NORTHWESTERN SYLLABUS STATEMENTS

### Academic Integrity

Students in this course are required to comply with the policies found in the booklet, "Academic Integrity at Northwestern University: A Basic Guide". All papers submitted for credit in this course must be submitted electronically unless otherwise instructed by the professor. Your written work may be tested for plagiarized content. For details regarding academic integrity at Northwestern or to download the guide, visit: <https://www.northwestern.edu/provost/policies-procedures/academic-integrity/index.html>

### Disability Accommodations

Northwestern University is committed to providing the most accessible learning environment as possible for students with disabilities. Should you anticipate or experience disability-related barriers in the academic setting, please contact AccessibleNU to move forward with the university's established accommodation process (e: [accessiblenu@northwestern.edu](mailto:accessiblenu@northwestern.edu); p: 847-467-5530). If you already have established accommodations with AccessibleNU, please let me know as soon as possible, preferably within the first two weeks of the term, so we can work together to implement your disability accommodations. Disability information, including academic accommodations, is confidential under the Family Educational Rights and Privacy Act.

### COVID-19 Classroom Expectations Statement

Students, faculty and staff must comply with University expectations regarding appropriate classroom behavior, including those outlined below and in the COVID-19 Expectations for Students. With respect to classroom procedures, this includes:

- Policies regarding masking, social distancing and other public health measures evolve as the situation changes. Students are responsible for understanding and complying with current University, state and city requirements.
- In some classes, masking and/or social distancing may be required as a result of an Americans with Disabilities Act (ADA) accommodation for the instructor or a student in the class even when not generally required on campus. In such cases, the instructor will notify the class.

If a student fails to comply with the COVID-19 Expectations for Students or other University expectations related to COVID-19, the instructor may ask the student to leave the class. The instructor is asked to report the incident to the Office of Community Standards for additional follow-up.

### Exceptions to Class Modality

Class sessions for this course will occur in person. Individual students will not be granted permission to attend remotely except as the result of an Americans with Disabilities Act (ADA) accommodation as determined by AccessibleNU.

### Prohibition of Recording of Class Sessions by Students

*Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact AccessibleNU. Unauthorized use of classroom recordings – including distributing or posting them – is also prohibited. Under the University's Copyright Policy, faculty own the copyright to instructional materials – including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.*

### Support for Wellness and Mental Health

Northwestern University is committed to supporting the wellness of our students. Student Affairs has multiple resources to support student wellness and mental health. If you are feeling distressed or overwhelmed, please reach out for help. Students can access confidential resources through the Counseling and Psychological Services (CAPS),

Religious and Spiritual Life (RSL) and the Center for Awareness, Response and Education (CARE). Additional information on all of the resources mentioned above can be found here:

<https://www.northwestern.edu/counseling/>  
<https://www.northwestern.edu/religious-life/>  
<https://www.northwestern.edu/care/>

### **Course Details Subject to Change**

Please note that the specifics of this course syllabus are subject to change in the case of unforeseen circumstances. Instructors will notify students of any changes as soon as possible. Students will be responsible for abiding by the changes.

### **TENTATIVE TOPICS COVERED**

- Income and Substitution Effects
- Budget Constraints and Indifference Curves
- Log Models
- Omitted Variable Bias
- Labor Supply

empirical evidence for primary earners and secondary earners, labor force participation decision versus hours-of-work decision

- Welfare- AFDC (pre-1996) and Welfare Reform- TANF (post-1996)

negative work incentives of AFDC, work requirement, earnings disregard program, effects of reform

- Earned Income Tax Credit (EITC)

expected effects on labor supply in regions I, II, and III, political popularity of EITC

- Food Stamps/ Housing

- Welfare- Moral Hazard

ordeal mechanisms, unlinking cash welfare and government health insurance

- Child Care

budget constraints when costs are purely hourly or purely fixed, tax treatment of child care

- Income Inequality

trends in income inequality, different measurements of poverty rate

- US Tax System

calculating individual income taxes, political process of measuring tax fairness, tax subsidy to home ownership, tax credits versus tax deductions

- Marriage Tax

competing goals of progressivity, across-family horizontal equity, and across-marriage horizontal equity

- Regression Review

- Tax Burden

tax on producers or consumers in product market, yacht tax

- Payroll Tax

tax on firms or workers in labor market, distribution of tax burden when there are impediments to wage adjustment

- Social Insurance

diminishing marginal utility from consumption, expected utility model, asymmetric information and adverse selection, addressing adverse selection with individual mandate

- US Health Care System

the uninsured population, prevalence of employer-provided health insurance

- RAND Health Insurance Experiment

elasticity of demand for medical care, effects of generosity of insurance on health outcomes

- How Generous Should Insurance Be?

catastrophic insurance, coinsurance rate in supply and demand diagram

- Mandated Benefits

cost to firm > benefit to worker, benefit to worker > cost to firm, mandated benefit versus public provision, mandates in ACA

- Oregon Health Insurance Experiment

effects of insurance on health outcomes

- Unemployment Insurance

- Deadweight Loss of Taxation

tax on sellers, tax on consumers, DWL and elasticities, DWL and size of tax, Laffer curve

- Taxes on Savings

intertemporal budget constraint, budget constraint with general subsidy to retirement savings, IRA budget constraint

- Capital Gains Taxation

- Fundamental Tax Reform

channels by which tax rate changes affect tax revenues, flat tax

- The Federal Budget Deficit

loanable funds market, deficit to finance investment versus deficit to finance transfers

- Social Security

- Externalities/ Gas Tax

- Differences-in-Differences/ Beer Tax/ Minimum Legal Drinking Age

- Political Economy