

# Econ 412: Labor Economics and Labor Markets: Theory, Evidence, and Policy

Syllabus<sup>1</sup>, Spring 2025 (Section 003)

**Meeting Time:** Mondays & Wednesdays, 11:15 am to 12:30 pm

**Location:** Business Building 102 (This is an in-person course)

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**Instructor:** Tianyi Li, [tl5673@psu.edu](mailto:tl5673@psu.edu)

Office: 512 Kern

Office Hours: Wednesday 1:30 pm-3:30 pm, or by appointment

**Teaching Assistant:** Elif Basaran, [efb5398@psu.edu](mailto:efb5398@psu.edu)

Office Hour and Zoom Link: Friday 1:30 pm-2:30 pm,

<https://psu.zoom.us/j/94007970155?pwd=jAfk3sSKY0QILalUbktiVob7xhbWvg.1>

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## Welcome Note, and Course Background:

Welcome everyone! We are thrilled to have you on this course. This course is an advanced introduction to labor economics. Although the coverage of topics somewhat overlaps with those in Econ 315, this course treats the topics more rigorously and empirically. We will focus on broad topics such as labor supply and demand, human capital investment (education and training), wage determination, search and unemployment, and earnings inequality. The goal is to introduce you to topics in labor economics with a rigorous and analytical approach. For each topic, the course will consider the underlying theory, pertinent empirical evidence, and implications for public policy. In turn, this course will serve as a gateway to advanced seminar courses in labor economics at the 400 level that the Economics Department is creating. The course will count toward both the major and the minor in economics.

**Course Website (Canvas Page):** <https://psu.instructure.com/courses/2381312>

**Prerequisites:** Enforced Prerequisite at Enrollment: ECON 306 Econometrics and (either ECON 302 Intermediate Micro or ECON 315 Labor Economics)

## Course Materials:

- **Textbook (Recommended):** *Labor Economics*, by George J. Borjas, McGraw Hill (8th Edition).

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<sup>1</sup> Subject to changes.

- **Note that:** The textbook will serve as useful background reading in case the slides are not entirely clear. Not everything covered in the slides will be covered in the textbook, and vice versa. When in doubt (or if you face time constraints), focus on the contents from the slides and the lectures, not the textbook.
- For background reading on some of the econometric concepts we will use throughout the course (including regression analysis, diff-in-diff, and instrumental variables), I recommend Stock and Watson's **Introduction to Econometrics** (any editions would do).
- **Lecture Notes and Other Relevant Materials:** these will be posted on Canvas when appropriate. For instance, I will post homework solutions after all the assignments are handed in.

**Grading Scheme:** there are 100 potential points to earn

- 3 Homework Assignments (can work together in groups; 10% each; a total of 30%)
- Midterm 1: 20%
- Midterm 2: 20%
- Final Exam: 30%
- Class participation: helps with "rounding up" final letter grade (e.g. a borderline C+ can become a B-)

#### **Course Policies:**

- **Canvas**
  - Homework (Problem Sets) will be administered via Canvas.
  - Any scheduling changes, important exam information, and other relevant announcements will be posted on Canvas. Please make sure to turn on your Canvas notifications so that you receive the course information on time.
  - Please ignore the "total score" column shown on your Canvas gradebook, as it is an unweighted average of your exam and homework scores. In other words, the total score column on your Canvas gradebook is inaccurate. Please refer to the syllabus for how we calculate your final course grade and the weight of each part.
- **Exams:**
  - There will be two midterm exams and one final exam.
  - Each exam consists of 4-5 questions. A question has several parts (sub-questions): some parts are short-answer questions that test your knowledge of the concepts and definitions, and others are empirical questions that ask you to analyze the situation and numerically solve for the answer.
- **Homework:**
  - There will be 3 homework assignments (problem sets).

- Homework assignments should be done in groups (2-4 students per group). Only one problem set per group needs to be turned in, but make sure the names of all group members are on the first page of the assignment.
- All homework assignments must be turned in on Canvas as a PDF file or a Word document by the appropriate due date. Other formats (photos, hard copies, etc.) will not be accepted. If you take photos of your work, please combine and convert them into a PDF file so that we can view and grade it.
- The homework assignments (problem sets) will be given grades of “Good” (10 points), “Satisfactory” (8 points), “Unsatisfactory” (5 points), or “Not handed in” (0 points). These grades are up to the discretion of the grader/TA, who will follow these guidelines in assigning grades:
  - Good (10 points): you answered all questions, and most sub-questions were answered correctly and/or with sufficient explanation behind your reasoning. Some mistakes are allowed, as long as you’ve made a good-faith effort (i.e., provide a detailed explanation for your reasoning (or the intuition behind the math)).
  - Satisfactory (8 points): you tried to answer all questions, but made several mistakes and/or did not write sufficient explanation behind your reasoning.
  - Unsatisfactory (5 points): you did not answer several of the assigned sub-questions, and made many mistakes and/or did not write sufficient explanation behind your reasoning.
  - Not handed in (0 points): student did not answer the majority of the assigned sub-questions, or did not hand in the homework at all.
- **Policy on Late Homework Submissions:** There will be a grade penalty for homework assignments submitted after the deadlines without justifiable excuses.
  - 0-4 hours delay: No penalty
  - 4-24 hours delay: 2 points off
  - Beyond 24 hours: Submission No Longer Accepted
- **Grade Disputes:** Any dispute regarding a grade (homework or exam) must be submitted to them in writing within 72 hours of when the grade is posted on Canvas. The student should provide a clear rationale for why they believe their grade is incorrect. Statements like “I think I’m right” or “I think I met all of the requirements of this assignment” are insufficient rationale. Upon review, your grade may be adjusted up or down.
- **Grading Policy:**

- Your numerical grade for this course will be calculated using the grade formula on page 2 (see the section “Grading Scheme”).
  - Since this is an advanced-level introduction course in labor economics, grading will be conducted on a nonlinear curve. I will sort students by their numerical grade (calculated above) and assign a grade of A to the top cluster of students, A- and B+ to the next groups, and so on.
  - In the end, around 30% of students will get an A or A-; 35% to 40% will get a B+, B, or B-, etc.
- **(Important!) Email Policy: Communication between students and the instructor**
    - No homework questions will be answered via email (except quick clarifications).
    - For long, complicated homework questions (e.g., solving a system of mathematical equations, questions that require a graphical response, etc.), please see us during office hours or before/after lectures.
    - We aim to respond to your email inquiries within 24 business hours; so if you email us during the weekend, you might get a response on Monday.
    - Email Etiquette: in your subject line, write your course and section number (e.g., Econ 425 Section 003; Econ 412 Section 003); be professional and respectful in your language.
    - Please don’t message us via the Canvas Inbox, as the message might get lost and we won’t be able to see it. It’s best to reach us through the email addresses listed on page 1 of the syllabus.
  - **Make-up Work and Exams**
    - Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Refer to Page 6 for a detailed description of valid reasons for missing an exam.
    - Make-up exams are possible for the final exam **only if** the student has another exam scheduled at the same time, or has three or more exams within a 24-hour period. This should be pre-arranged with the instructor at least 3 weeks before the final exam.
  - **SDR Accommodations**

- If you have an accommodation letter from the SDR (Student Disability Resources) Center, please send it to me during the first week of the class. I am happy to work with the SDR Center to accommodate your exam requests.

- **Miscellaneous:**

- Please don't send inquiries about extra-credit opportunities---this course treats everybody fairly, and we are unable to offer extra-credit opportunities for some but not others.

### **Tentative Course Outline:**

<b>Week (M/D)</b>	<b>Topics</b>	<b>Homework Timeline (tentative)</b>
1 (1/13, 1/15)	Lec 1: Course Introduction Lec 2: Intro to Labor Supply	
2 (1/20, 1/22)	No class on Monday (MLK Day) Lec 3: Labor Supply & Math Review	
3 (1/27, 1/29)	Lec 4 and 5: Labor Supply (continue)	
4 (2/3, 2/5)	Lec 6 and 7: Econometrics Review	HW1 posted this week
5 (2/10, 2/12)	Lec 8 and 9: Labor Demand	
6 (2/17, 2/19)	Lec 10 and 11: Minimum Wage	
7 (2/24, 2/26)	Lec 12 and 13: Labor Market Equilibrium	HW1 due this week
8 (3/3, 3/5)	Mon: Midterm 1 Review Wed: Midterm 1 Exam (In Class)	HW2 posted this week
9 (3/10, 3/12)	<b>Spring Break, No Classes</b>	
10 (3/17, 3/19)	Lec 16 and 17: Payroll taxes and subsidies	
11 (3/24, 3/26)	Lec 18 and 19: Migration and Labor Market Outcome	HW2 due this week
12 (3/31, 4/2)	Lec 20 and 21: Wage determination (pay and productivity, wage differentials, etc.)	
13 (4/7, 4/9)	Mon: Midterm 2 Review Wed: Midterm 2 Exam (In Class)	HW3 posted

14 (4/14, 4/16)	Lec 24 and 25: Education and Human Capital	
15 (4/21, 4/23)	Lec 26 and 27: Job Search, Matching, and Unemployment	
16 (4/28, 4/30)	Mon: Buffer Wed: Final Review	HW3 due this week
Exam Week	<b>Final Exam</b>	More details will be announced in due course

## Additional Policies and Resources:

- **VALID REASONS FOR MISSING AN EXAM:** Found at <http://econ.la.psu.edu/undergraduate/valid-excuses> Illness or injury, family emergencies, certain University-approved curricular and extra-curricular activities, and religious holidays can be legitimate reasons to be excused from a scheduled examination. In the case of your own illness or injury, confirmation from a physician, the physician's assistant, or a nurse is required. Further, barring extraordinary circumstances, the confirmation must be available to the instructor prior to the missed exam. With regard to family emergencies, you must provide verifiable documentation of the emergency. Unless the emergency is critical you should notify the instructor in advance of your absence from the scheduled course event. In cases of critical emergencies, you must notify the instructor within one week of your absence. For University-approved curricular and extra-curricular activities, verifiable documentation is also required. The letter must be presented to the instructor at least one week prior to the first absence. In the case of religious holidays, notify the instructor by the third week of the course of any potential conflicts.
  - Note that: early flights home, trips for leisure, bus tickets to leave town, and family vacations are NOT valid excuses to miss or reschedule an exam (midterm or final). Students should make plans to leave campus AFTER all their scheduled exams are completed. It is best not to book flights that leave during finals week. Instructors are required to give the final exams according to the University schedule and cannot give makeups or reschedules for non-valid or non-approved excuses.
- **STATEMENT OF ACADEMIC INTEGRITY:** Penn State defines academic integrity as the pursuit of scholarly activity in an open, honest, and responsible manner. All students should act with personal integrity, respect other students' dignity, rights, and property, and help maintain an environment in which all can succeed through their efforts

(Faculty Senate Policy 49-20). Dishonesty of any kind will not be tolerated in this course. Dishonesty includes but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students who are found to be dishonest will receive academic sanctions and will be reported to the University's Judicial Affairs office for possible further disciplinary sanction.

- **STATEMENT OF NONDISCRIMINATION:** The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. The Pennsylvania State University does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status.
- **EDUCATIONAL EQUITY AND BIAS REPORTING STATEMENT:** Penn State takes great pride in fostering a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, or harassment due to age, ancestry, color, disability, gender, gender identity, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated. Consistent with University Policy AD29, students who believe they have experienced or observed a hate crime, an act of intolerance, discrimination, or harassment that occurs at Penn State are urged to report these incidents as outlined on the University's Report Bias webpage (<http://equity.psu.edu/reportbias>)
- **DISABILITY ACCESS STATEMENT:** Penn State encourages qualified people with disabilities to participate in its programs and activities and is committed to the policy that all people shall have equal access to programs, facilities, and admissions without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. If you anticipate needing any type of accommodation in this course or have questions about physical access, please tell the instructor as soon as possible.
- **COUNSELING AND PSYCHOLOGICAL SERVICES STATEMENT:** Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional well-being. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all

students and embrace a philosophy respectful of clients cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation. (<http://studentaffairs.psu.edu/counseling/>) 814-863-0395.

- **FEEDBACK AND SUGGESTIONS:** Please let me know if you have any concerns or comments about this course, as I would like you to enjoy the course and the learning experience. If you would like to provide feedback about this course, you may also contact the Director of Undergraduate Studies in Economics or leave a comment in the box that the Department maintains at 303 Kern.