Issues in Economics: Technology, Prosperity, and Inequality over Three Centuries

Course: Economics 1305
Location: Foster 124
Days: Tuesday and Thursdays
Time: 9:30am to 10:45am

Professor Information

Dr. Scott Cunningham
📧 Preferred email: scunning@gmail.com
🌐 https://www.scunning.com
📍 Office location: 320.15
⏰ Office hours: Tuesday and Thursday, 8:00am to 9:15am

Course Description:

In this semester of the class "Issues in Economics", we will discuss the transformative impact that machines and technology have on human society and workers over the last 300 years. Humans create machines to manipulate their environment but through machines adoption by firms and households, machines operating through market processes manipulate us too, often through our earnings and skills. Our focus will be on labor markets, societal welfare, and human's reasons for and desire and need to work before now and how those things have been changed by machines. We will be thinking about artificial intelligence using lessons from previous machine and technology eras, but note, this is not a pro or anti-technology class. It is meant to provide you with the theoretical framework and evidence to form your own opinions about machines, technology and artificial intelligence.

We will discuss the British industrial revolution, the 20th century changing trends in income inequality as it relates to education, and the rise of AI in our current era. The theme common themes are prosperity and inequality, winners and losers, and public but also private policy. We want to better understand the various causes of inequality that can be attributed to machines and skill and those causes which are not. Our tools for this journey include thought-provoking readings, lively discussions, hands-on exercises, and direct engagements with cutting-edge AI like GPT-4.

S.M.A.R.T. Learning objectives

Specifics – What action will be performed and by whom?
Measurable – How will success be measured?
Achievable – Can this be achieved within a given time frame and with available resources?
Relevant – Are the objectives aligned with the instructional method and assessment?
Time-Bound – When will this objective be achieved

I have three basic learning objectives for this course, though one of them is non-traditional. They are to foster personal development, mutual respect and self-love; cultivate students' understanding of some economics concepts; and develop a practical understanding of AI and large language models. I discuss those here. The assignments including exams were designed in an effort to be S.M.A.R.T. with these three goals in mind.

1. **Foster Personal Development & Self-Love**: The course aims to:
   - Encourage students to engage in respectful and empathetic dialogue in discussions, fostering emotional intelligence and self-respect.
   - Promote self-reflection by asking students to relate topics to their own lives and future careers.
   - Help students connect vocation and career with values as they begin thinking about their own life journey with a pragmatic and moral understanding of who they are and where they want to go.

2. **Cultivate Understanding of Economic Concepts**: The course aims to:
   - Teach students about the impact of machines and work in the 19th, 20th and 21st century using readings in economics
   - Enable students to explain key economic concepts related to work, production, and inequality.
   - Equip students with the ability to apply these concepts in analyzing real-world issues.

3. **Develop a Practical Understanding of AI and Language Learning Models (LLMs):** The course aims to achieve:
   - Help students understand the basic principles of AI and LLMs such as ChatGPT-4.
   - Help students gain practical experience with ChatGPT-4 or similar AI tools and can use them effectively.
   - Help students develop a critical opinion about artificial intelligence as it relates to society as well as their own lives.

Required Materials

1. **Robert Allen** (2009) - *The British Industrial Revolution in Global Perspective* Cambridge University Press: Amazon: $28

2. **Acemoglu, Daron and Simon Johnson** (2023) - *Power and Progress*: *Our Thousand-Year Struggle Over Technology and Prosperity*, PublicAffairs: $24 (Amazon)

3. **Goldin, Claudia and Laurence Katz** (2010) - *The Race Between Education and Technology*, Belknap Press, Imprint of Harvard Press: $29 (Amazon)

4. **ChatGPT-4** or equivalent (Claude, Bing, Bard). A subscription model, specific to OpenAI's ChatGPT-4 large language model, is preferred. Estimated cost: $20/month (for 5 months) but if you cannot afford it, we can discuss an alternative like the free Bing, Bard or Claude.

5. **Packback.**

Assignments and Final Grade Breakdown

- **Packback Discussion (10%):** Engage in weekly discussions. Pose a question and respond to two peer queries based on reading assignments. Adherence to deadlines is crucial.

- **Podcast Interview (40%):** A unique opportunity to virtually "interview" a historical figure from your desired career field using ChatGPT-4. Engage in a rich, historically-anchored conversation that bridges past insights with contemporary challenges and trends.

    o Assignment 1 (5%): Memento Mori and 20-year plan
    o Assignment 2 (5%): Selecting interviewee and biography
    o Assignment 3 (5%): Labor market research
    o Assignment 4 (5%): Listen to Tyler Cowen and Jonathan Swift interview as well as my Adam Smith interview and one of podcast interviews (The Mixtape with Scott) and design an interview in the style of "personal stories" genre that moves into your contemporary discussion about your career and the labor market you're thinking about
    o Assignment 5 (5%): Transcript of ChatGPT interview
    o Final project (15%): recorded podcast interview

- **Critique (10%):** Weekly engagement with ChatGPT to summarize and critique assigned articles. Your primary role is to evaluate ChatGPT's performance, using a provided rubric, and to share your perspective on the article.

- **Exams (40%):** A midterm and a final exam will test your understanding of the readings, lectures, and articles discussed throughout the course.

    o Midterm: 20% (Pre-spring break)

- Final: 20% (End of semester)

Grading Overview:

Critique assignment rubric: 2 separate documents uploaded to Canvas on end of day Thursday of class (11:59PM CST). These documents will have specific names and in PDF format. Those are the "crit1" and crit2" files, or *Lastname_Crit1_MMDDYY.PDF* and *Lastname_Crit2_MMDDYY.PDF.*

Lastname_Crit1_MMDDYY.PDF
The Crit1 file contains a ChatGPT-4 written summary and critical assessment with two sources of a reading that I have assigned. Your job here is simply to set up the prompting such that ChatGPT-4 creates the file. I want it to be copied and formatted into the document in a nice way, otherwise this is something ChatGPT-4 created.

- ChatGPT's 1-3 page Summary and Critical Commentary (50%)
    - At the top, write the name of the readings (its author, title, and location).
    - Copy and paste assignment into ChatGPT-4 and ask ChatGPT-4 to read, summarize, simplify, and explain it back to you in 1 to 3 pages that includes a critical interaction with the author and the article. Feel free to experiment with this (e.g., "explain to me like I'm 5", "explain to me in my native language") and fine tune it to what you're wanting to hear that day. Ask that ChatGPT in its commentary responding critically to the article provide 2 new sources. The source must listed at the end as references so that you can check them.
    - Doublecheck and ensure that the produced 1 to 3-page summary by ChatGPT in fact understood the prompt and article you gave it.

Lastname_Crit2_MMDDYY.PDF
The Crit2 file is your grade of how ChatGPT did, as well as your justification of that grade (brief). You'll also write a short piece based on what you learned from this. It's fairly open ended but it has steps and you have to complete all the steps to get full credit.

- Personal Evaluation of ChatGPT's Summary (25%). At the top of this second document, rewrite the name of reading as with the Crit1 file. Post clear the total score that you gave ChatGPT-4's output. The max score ChatGPT-4 can get is a total of 14. Below is the way you are to tally its score:
  - *Accuracy score*: Grade the accuracy, depth and quality of its summary on scale of 1 (very poor and inaccurate) to 5 (extremely well written and accurate)
  - *Hallucination score*: Give 2 points for a citation if it is exactly right, 1 point if is partly correct, and 0 if it in your opinion "hallucinated". (4 max)
  - *Creativity score*: Grade the creativity of its answer from 1 (very poor and not creative) to 5 (very interesting and creative).
- Personal discussion and interaction experience with ChatGPT (25%):
  - Write out an explanation as to why you gave ChatGPT each of those three scores. These are clearly subjective scores. So I'm just asking you to judge and justify your judgment.
  - Write a short response file to what you noticed from this experience. You can write about the original article, you can write about ChatGPT's interaction, or something that it prompted you to say or think. Reflect on any new understandings, questions, or perspectives you developed through this process.

Podcast rubric will be provided per assignment.

Final Grade Scale: Your grade for the class is a weighted average of those four assignments (with weights as those percentages). I round up so long as the final weighted average is 0.5 to 0.99 and I round down if it's below 0.5 on the following ten point intervals. Remember, most of your grade is the podcast and exams, but there's easy ways to get 20% -- do your Packback and your Crits.

- A: 90-100
- B: 80-89
- C: 70-79
- D: 60-69
- F: <60

Course Policy

Commitment to Open Inquiry and Constructive Dialogue

In this class, both students and faculty are safeguarded by the principles of freedom of speech and academic freedom. These protections, rooted in the U.S. Constitution, ensure our right to express ideas, pursue truth, and participate in debates without undue interference. Everyone is encouraged to share, learn, and engage without fearing negative repercussions on grades, employment, or university standing.

Title IX Office – Coordinator, Kristan Tucker

Baylor University stands against discrimination or harassment based on sex or gender in its programs and activities. For assistance or to report incidents like sexual assault, harassment, exploitation, stalking, or retaliation, contact the Title IX Office at (254) 710-8454 or [report online](www.baylor.edu/titleix). They offer confidential support, including counseling, medical services, academic assistance, housing, and more. For immediate dangers, contact the Baylor Police Department at (254-710-2222) or Waco Police (9-1-1). More details can be found on the provided website.

Makeup Exam Policy
If you miss an exam, the final exam will count for both the missed exam and the final itself. I do not give retakes. So plan your time accordingly.

Students with Disabilities
Students requiring accommodations should inform me at the semester's start. Obtain documentation from the Baylor University Office of Access and Learning Accommodation (OALA) and share it early. Contact OALA at (254) 710-3605 or visit in Paul L. Foster Success Center - Sid Richardson - Room 190.

Academic Honesty

Familiarize yourself with Baylor's [Code of Academic Conduct](http://www.baylor.edu/honorcode/index.php?id=44060). Any acts of academic dishonesty will be taken seriously and referred to the Associate Dean. If struggling, approach me to discuss late submissions with penalties. Collaboration on homework is allowed, but each student must write their own work.

Course Outline by Date and Week

Week	Date	Topic/Reading/Assignment
1	Aug 22 (Tue)	Introduction to the course
	Aug 24 (Thurs)	Allen chapter 1 on Industrial Revolution, and NYT interview with Bing's Sydney chatbot (Feb 16, 2023) posted to Canvas, Values assignment, Packback introductions. Only read the actual interview between the NYT journalist, Kevin Roose, titled "Full transcript". No Crit due this week.
2	Aug 29 (Tue)	
	Aug 31 (Thurs)	
3	Sept 5 (Tue)	
	Sept 7 (Thurs)	
4	Sept 12 (Tue)	
	Sept 14 (Thurs)	