Instructor: Daniele Tavani, Associate Professor. Email: Daniele.Tavani@Colostate.edu.
Class meetings: **TR 12.30-1.45**.
Office Hours: **TR 2-3.30 or by appointment**. My office is located at C310 Clark. Office hours will be preferably held on Zoom, with Meeting ID: **876 173 8946**, password **NoZoomBomb**.

***

COVID-19 Accommodations

1. Until every single student in this course is safely on campus, class meetings will occur synchronously through **Zoom** at https://zoom.us/j/8761738946. On the Zoom app, click on "Join meeting" using Meeting ID **876 173 8946**, password **NoZoomBomb**.

2. Class meetings will be recorded to allow asynchronous fruition of the course content. I will add links to recordings on Canvas.

3. The course will be divided into Canvas **Modules** to facilitate navigation of the course content.

4. You will submit all **assignments and exams** electronically through Canvas. Using CamScanner is strongly recommended.

5. It is strongly recommended to add the Canvas app to your phone and allow **push notifications** from it. It is your responsibility to be aware of any course-related communication in timely fashion.

6. Once everyone is safely on campus, the course will move to in-person, Clark A205. We will follow University Policy for the SP2021 Semester: after Spring Recess (4/10–4/18), the course will resume online on Zoom as specified above.

7. **Makeup policy** will take into account special circumstances given the situation.

***

1   Course Description

This course will survey contemporary heterodox approaches to economic research, both from a microeconomic and a macroeconomic perspective. Topics will be treated from a general, critical, and mathematical standpoint. The adjective 'heterodox' must be understood broadly. Some of the ideas and models developed in the course will not be 'heterodox' from a methodological point of view, even though their implications fall outside those of 'mainstream' economics.

One of the main themes of the course will be to understand how ideas from political economy can be formalized into mathematical models and how these ideas apply to current economic issues. The goal of developing models is to be able to draw policy implications that can be used to inform policy making. Emphasis will be put on developing analytical and modeling skills that will enable the interested student to contribute originally to these research fields, both theoretically and empirically.

The course is divided in two parts, and each part will roughly take 8 weeks.

- The first part of the course will focus on contemporary microeconomic interpretations of ideas rooted in Classical Political Economy (Smith, Ricardo, Malthus, Marx...). Topics will include: self- and other-regarding preferences, coordination failures, evolutionary game theory, capitalist institutions, information problems and power in labor and credit markets, and general equilibrium implications.

- The second part of the course will be centered around developing intuition and modeling techniques in order to study the linkages between economic growth and income distribution, both in developing and advanced economies. One focus of this part of the course will be on *class*, defined in relation to the ownership (or the lack thereof) of capital assets, and its implications for growth and distribution patterns. Topics will include: Classical theories of the long-run tendencies of capital accumulation, technological change, growth and distribution; medium-run fluctuations and distributional conflict; Keynesian and Post-Keynesian theories of investment, income distribution, and growth; secular stagnation and the distribution of wealth.

The course will be somewhat heavy on the math, but we will try to put equal weight on the quantitative part as well as on the interpretation of mathematical results.

2   Course Objectives

At the end of the course, successful students should be able to:

- Apply basic concepts of classical and evolutionary game theory to understand institutional design, coordination problems, public goods, externalities.

- Develop tools in asymmetric information modeling in order to understand principal–agent problems with applications to labor markets and credit markets.

- Develop a working knowledge of models incorporating growth and distribution dynamics, alternative model 'closures' and policy implications.

- Develop a graduate understanding of: technical change, the distribution of wealth, and the role of aggregate demand in economic growth and income distribution.

3   Texts

1. Bowles, Samuel 2006 (**B**). Microeconomics, Princeton. ISBN-13: 978-0691126388

2. Foley, D. K., Michl, T. R., Tavani, D. 2019 (**FMT**). Growth and Distribution, Second Edition, Harvard. ISBN-13: 978-0674986428.

B is **required** for the first half of the class (micro), while FMT is **required** for the second half (macro/growth). Some of the topics will be analyzed using recent research papers published in refereed journals. Notes and/or articles from topics not covered in the main texts will be distributed through Canvas.

4   Required Work

The table below lists the *minimal* expectations about weekly effort for the class. The final grade for the class will be a weighted average of: problem sets, a midterm exam, a final exam, and weekly online discussions, .

1. **Exams** (40% of the grade): A take-home, synchronous midterm exam Thursday, March 11, 2020 (20% of the grade). A take-home, synchronous final exam, concerning topics pertaining to the second

Activity	Contact Hours/week
Attend class	2.5
Read assigned readings	2
Review class notes	1.5
Work on problem sets	3
Participate in online discussions	1.0
Study for exams	2.0
Total	**12.0**

part of the class (20% of the grade). According to the University Calendar, the final exam will take place Wednesday, May 12th, 2020, 6.20-8.20p. Alternative arrangements will be discussed with the whole class and communicated through Canvas.

2. **Problem Sets** (50% of the grade): 6 problem sets (3 for each part) will be posted on Canvas and due by the specified due date. Tentative due dates for the problem sets are below. Changes will be communicated through Canvas.

PSet 1: 2/4	PSet 2: 2/18	PSet 3: 3/4
PSet 4: 3/25	PSet 5: 4/8	PSet 6: 4/22

3. **Weekly Online Discusssions** (10% of the grade): You are required to do the readings for the class in advance. We will announce readings for the following week, and you will post at least one articulated question pertaining to the readings on the discussion board on Canvas *before the Tuesday class each week* including the first week of class. It is also OK to sometimes provide an articulate answer to questions posed by other students instead of asking your own question. We will then use the questions and answers for discussion in class.

4. **Class Participation/Discussion**: Students are expected to actively participate in each class. Class participation raises the level of the discussion, other than inspiring research ideas. I expect students to participate actively during lectures: for the online synchronous portion of the course, please either use the chat feature in the Zoom meeting or speak up to ask a question.

5   Grading

For this course, we will follow the basic CSU's Grade Scheme implemented in Canvas. The scheme is as follows:

A+	100.00%	to 96.67%	B-	$< 83.33\%$	to 80%
A	$< 96.67\%$	to 93.33%	C+	$< 80.00\%$	to 76.67%
A-	$< 93.33\%$	to 90%	C	$< 76.67\%$	to 70%
B+	$< 90.00\%$	to 86.67%	D	$< 70.00\%$	to 60%
B	$< 86.67\%$	to 83.33%	F	$< 60.00\%$	to 0

6   Make up Policy

You must be able to provide written evidence of any medical or personal emergency which causes you to unexpectedly miss the midterm or the final exam as scheduled. In case no such evidence is provided, and you miss an exam, you will receive 0 points for it.

Alternative due dates for problem sets can be negotiated in advance with me, but they will apply to the whole class.

7   Academic Integrity

This course adheres to the Academic Integrity Policy of the General Catalog and the Student Conduct Code. As per university policy "Any student found responsible for having engaged in academic dishonesty will be subject to an academic penalty and/or University disciplinary action." (General Catalog 2014-2015, Section 1.6.). Any academic dishonesty in this course may result in a failing grade for the course and may be reported to the Office of Conflict Resolution and Student Conduct Services. Please beware that the General Catalog identifies the following examples of academic dishonesty: cheating in classroom, plagiarism, unauthorized possession or disposition of academic materials, falsification, and facilitation of acts of academic dishonesty. Plagiarism is de- fined as: "Plagiarism includes the copying of language, structure, ideas, or thoughts of another, and representing them as ones own without proper acknowledgement. Examples include a submission of purchased research papers as ones own work; paraphrasing and/or quoting material without properly documenting the source." (General Catalog 2014-2015, Section 1.6.).

8   Accommodation for Students with Disabilities

Reasonable requests for accommodation to disabilities will be entertained. However, students are responsible for requesting accommodations in a timely manner and must be recognized as eligible for the accommodation through the Student Disability Center (SDC). For more information visit the SDC website.

9   Title IX Information

CSU's Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation policy designates faculty and employees of the University as "Responsible Employees." This designation is consistent with federal law and guidance, and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic communications or in class assignments. As "Responsible Employees," faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking and retaliation is treated with the greatest degree of confidentiality possible while also ensuring student and campus safety."

- Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources:

    - Emergency Response 911

- – Deputy Title IX Coordinator/Office of Support and Safety Assessment (970) 491-1350.
- – Colorado State University Police Department (non-emergency) (970) 491-6425.

- For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at: http://www.health.colostate.edu. And, the Sexual Assault Victim Assistance Team is a confidential student resource that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is http://www.wgac.colostate.edu/need-help-support.

10   Recording

Students recording, reproducing, screenshotting, photographing, or distributing any video, audio, or visual content from this course is strictly prohibited without prior written approval from Daniele Tavani. Some students may require a reasonable accommodation under the Americans With Disabilities Act that would allow them to record, reproduce, screenshot, photograph some course content, including video, audio, or other content. To accomplish this, a student should contact CSUs Student Disability Center (SDC) at (970) 491-6385. Recordings of class materials and content for this purpose are to be used solely for individual or group study and may not be reproduced or shared in any way (including electronically or posting in any web environment).

11   COVID-19 Information

All students are required to follow public health guidelines in any university space, and are encouraged to continue these practices when off-campus(es). Students also are required to report any COVID-19 symptoms to the University immediately, as well as if they have potentially been exposed or have tested positive at a non-CSU testing location. If you suspect you have symptoms, please fill out the COVID Reporter. If you have COVID symptoms or know or believe you have been exposed, it is important for the health of yourself and others that you complete the online COVID Reporter. Do not ask your instructor to report for you; if you report to your instructor that you will not attend class due to symptoms or a potential exposure, you are required to also submit those concerns through the COVID Reporter. If you do not have access to the internet to fill out the online COVID-19 Reporter, please call (970) 491-4600.

If you report symptoms or a positive test, your report is submitted to CSUs Public Health Office. You will receive immediate, initial instructions on what to do and then you will also be contacted by phone by a public health official. Based on your specific circumstances, the public health official may: 1) choose to recommend that you be tested and help arrange for a test; 2) conduct contact tracing; and/or 3) initiate any necessary public health requirements or recommendations and notify you if you need to take any steps. If you report a potential exposure, the public health official will help you determine if you are at risk of contracting COVID. For the latest information about the Universitys COVID resources and information, please visit the CSU COVID-19 site.

12   Copyright Statement

"Please do not share material from this course in online, print or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are

also subject to copyright protections. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructors express permission, including with online sites that post materials to sell to other students, could face disciplinary or legal action."

13   Topics

The following list of topics is tentative, because many of the following topics will easily cover more than a week. Topics may be added or dropped according to the actual progress made in class. Variations in the covered topics will be communicated in class and through Canvas.

- Part I: Micro (Weeks 1 - 8)

  1. Social interactions and institutional design (B1).
  2. Spontaneous order. an introduction to evolutionary game theory (B2).
  3. Preferences and behavior (B3).
  4. Strategic complementarities and coordination failures (B4).
  5. Bargaining and rent seeking (B5).
  6. Employment, unemployment, and wages (B8).
  7. Credit markets, wealth constraints, and allocative inefficiency (B9).
  8. The institutions of a capitalist economy (B10)

- Part II: Macro/Growth and Distribution (Weeks 9 - 15)

  1. Growth and distribution. One sector models: consumption and growth, wages and profits. Income shares. Choice of technique and production functions N-sector models of growth and distribution. Equalization of profit rates. Issues with capital theory (FMT1-3, additional lecture notes).
  2. Model closures: the labor market. Classifying Technical Change. Biased Technical Change and competing views of income distribution. Applications using the Extended Penn World Tables (3.0) (FMT4, 8).
  3. Savings and capital accumulation. Arbitrage equations and inter-temporal optimization (FMT 5, notes on Canvas).
  4. Classical models of growth and distribution: distributive closure vs. labor-constrained closure (FMT6).
  5. Goodwin's (1967) growth and distribution model, and contemporary developments (additional lecture notes).
  6. Workers' savings and the Pasinetti theorem (FMT17).
  7. Technical progress and the functional distribution of income. Neoclassical (technology) and classical (class-conflict) perspectives. (FMT7, various papers).
  8. Capacity utilization, aggregate demand, and the business cycle: basic elements of post-Keynesian macroeconomics (FMT12, various papers).