

HPSC0094

Political Economy of Science

Course Syllabus

2023-24 session | Dr Tiago Mata | t.mata@ucl.ac.uk

Course Information

Science is integral to the production of value and wealth in contemporary capitalism. In this module we will explore this relationship drawing from literatures from economic history, political sociology and the economics of research. We will examine how transformations in the political economy such as the rise of the corporation, the building up of national government bureaucracies and the expansion of financial markets have transformed how science is administered and commodified.

Basic course information

Course website:	See moodle.
Moodle Web site:	https://moodle.ucl.ac.uk/course/view.php?id=37557
Assessment:	Two essays of 2000 words each
Timetable:	Thursday 11-13, Haldane Room
Prerequisites:	None
Required texts:	Readings listed below
Course tutor(s):	Dr. Tiago Mata
Contact:	t.mata@ucl.ac.uk
Web:	http://www.ucl.ac.uk/sts/staff/mata
Office location:	22 Gordon Square, room 2.1

Schedule

Week	Topic	Date	Activity
1	Agendas for the political economy of science	11 Jan	Do essential reading
2	Debate A: triumph of neoliberalism or...	18 Jan	Do essential reading
3	... or the end of capitalism	25 Jan	Do essential reading
4	Debate B: knowledge society/economy or...	1 Feb	Do essential reading
5	... or platform capitalism	8 Feb	Do essential reading
6	Reading week		
7	On reputation	22 Feb	Do essential reading
8	On intellectual property	29 Feb	Do essential reading
9	On assets	7 Mar	Do essential reading
10	On labour	14 Mar	Do essential reading
11	Review	21 Mar	Bring plans for assignment

Assessments

Summary

	Description	Deadline	Word limit	Deadline for Tutors to provide Feedback
1	Polemic on today's political economy	14 Feb, 5pm	2,000	As advised in class
2	Understanding the political economy of UCL	17 Apr, 5 pm	2,000	As advised in class

Aims & objectives

Aims:

Students should complete the course with a repertoire of concepts and modes of analysis that allow them to examine the ways science is marshaled for the creation of economic value. They should be able to demonstrate how many of the discourses underlying the governance of research are underpinned by economic models and idealizations.

Objectives:

By the end of this module students should be able to:

- Identify the key concepts from political economy;
- Analyze the intermingling of scientific research, economy and politics;
- Describe the evolution of the relationship between scientific research and corporate capitalism;
- Demonstrate effective researching and critical reading skills;
- Be able to conduct a critical analysis and report such analyses persuasively and coherently;
- Create relevant and critical bibliographies for research projects on the subject;
- Present their work effectively in oral and written formats.

Assignments

The module is assessed by two pieces of coursework submitted via the “Turnitin” function of the module’s moodle page. Both assignments are individually written essays on the intermingling of science and economy. They will be anonymously marked by the convenor and an assigned second marker.

Assignment 1.

A polemic on contemporary political economy

In this essay you are asked to express your viewpoint and experience on the changing political economy regime.

Students will write an essay that begins with one of two sentences...

A. I disagree with the BLANK argument because ...

B. I agree with the BLANK argument because...

Blank is to be replaced by one of the anchoring phrases of weeks 2 to 4: knowledge society, platform capitalism, the triumph of neoliberalism, the end of capitalism.

Students are encouraged to make use of the extensive reading list (additional readings) offered by the lecturer for each of those four weeks, they should integrate those insights with their reading of other political economy literature, media reports, popular political writings, and their own lived experience as students, as professionals and as citizens.

The essay should not exceed 2000 words (+ or – 10%, without references and without the AI

statement, see below).

Assignment 2.

Understanding the political economy of UCL

In this essay you are asked to apply one of the themes of weeks 7 to 10, IP, assets, reputations, labor to UCL. The tone of the essay should be of an empirical investigation into the history, policies, programmes and partnerships of our institution.

Further guidance on the contents and research strategy for this essay will be provided throughout the second half of the module and we will use the last session of “review” to tease out possible essay topics and primary sources.

The essay should not exceed 2000 words (+ or – 10%, without references and without the AI statement, see below).

Note on referencing

You must reference all quotes and all references/ summaries of books. Pick one system for referencing and stick to it. Refer to individual page numbers, not just whole texts. Making use of ideas from or paraphrasing material without clearly referencing the original source is plagiarism and has incurs serious penalties. If you are unsure how to reference, please follow the advice from UCL Library

- UCL explanation of Academic Integrity for students: <https://www.ucl.ac.uk/students/exams-and-assessments/academic-integrity>
- UCL Library guide to referencing and avoiding plagiarism: <https://library-guides.ucl.ac.uk/referencing-plagiarism>
- Tutorial on referencing and avoiding plagiarism: https://www.ucl.ac.uk/library/forms/articulate/referencing-plagiarism/story_html5.html
- UCL Academic Integrity Moodle Course: <https://www.ucl.ac.uk/teaching-learning/news/2019/nov/introduction-academic-integrity-new-moodle-course-taught-students-goes-live>
- Details of the penalties for academic misconduct: <https://www.ucl.ac.uk/academic-manual/chapters/chapter-6-student-casework-framework/section-9-student-academic-misconduct-procedure#9.3>

Note on bibliography and AI statement

You need to supply a bibliography of all works referenced at the end of your essay. You must supply author, title, date, place of publication and publisher.

The essay must include a statement declaring to what extent generative AI was used in the research and writing. The statement can be a single sentence: “I have not used AI tools for research or writing this essay” or it can be detailed, naming the tools, the uses made of the tools and your reflection and evaluation of their usefulness.

Reading list

Below is a simple abstract detailing the subject of the week's meeting and the essential reading. On moodle students will find additional readings that are background literature to the lectures but also that speak to the demands of the two assignments. Students are not expected to read all of these, but as they work on their essays they will find those literature suggestions invaluable.

Students must read and answer guiding questions on the essential readings. Class activities assume knowledge of these essential texts.

Wk 1. Agendas for the political economy of science, 11 January

The purpose of our first session is to set a scene for the module. We do this in three ways: by a discussion of the thematic outline of the module and its assessments; by an explanation of what is meant by "political economy of science;" and by discussion of two readings that give us very conflicting accounts of the tasks facing political economists of science.

Edgerton, D (2017) "The Political Economy of Science: Prospects and Retrospects" in *Handbook of Political Economy of Science*. Chapter 1.

Mirowski, P. (2017) "What is science critique? Lessig, Latour" in *Handbook of Political Economy of Science*. Chapter 32.

Wk 2. Debate A: The triumph of neoliberalism or...., 18 January

In the first half of the module we look at debates in political economy. Although the views in controversy are not primarily (narrowly) about science, we will find that transformations to the content and governance of science and technology are a crucial backdrop. The first argument is that contemporary political economy is the result of a decades long project of promoting markets as the preferred device to regulate collective life. Two key claims of neoliberal advocates are that markets are to be promoted because of their epistemic qualities, and that markets are not only fit to insert themselves in transactional relations but they are all purpose, and can improve efficiency (and fairness!) in all public, civic and private domains.

Jamie Peck, Nik Theodore, Neil Brenner (2012) "Neoliberalism Resurgent? Market Rule after the Great Recession" *South Atlantic Quarterly* 111 (2): 265–288.

Wk 3. Debate A: ... or the end of capitalism, 25 January

In the first half of the module we look at debates in political economy. Although the views in controversy are not primarily (narrowly) about science, we will find that transformations to the content and governance of science and technology are a crucial backdrop. The second argument is a counterpoint to the previous week, not only is the market on its last legs so is capitalism. The pessimist vision of many writers is of a world system without ready to deploy alternatives and so capitalism with its failings and disorders leads us to social and political decay and confusion.

Streeck, Wolfgang (2014) "How will capitalism end?" *New Left Review* 87, May/June.

Wk 4. Debate B: The knowledge economy or... , 1 February

We continue to make our way into the subject of political economy by way of polemics written in the academic and popular literature. The third set of arguments we examine is that contemporary capitalism has entered a new stage where the value generation comes from ideas and technology, rather than from labour and productive efficiency. In this knowledge economy science does not stand outside the field of moneyed interests, it is its animating spirit.

David, Paul A. and Foray, Dominique (2003) "Economic Fundamentals of the Knowledge Society" *Policy Futures in Education* 1(1): 20-49

Wk 5. Debate B: ... or platform capitalism, 8 February

We continue to make our way into the subject of political economy by way of polemics written in the academic and popular literature. The fourth set of arguments speaks to a crucial imbalance in the global political economy, inequality. After the early enthusiasm for the "new economy" what has remained from it was not a levelling new ways of doing business but a system of corporate giants that use technology services to extract rents from the rest of the economy.

Birch, Kean and D. T. Cochrane (2022) "Big Tech: Four Emerging Forms of Digital Rentiership," *Science as Culture*, 31(1): 44-58.

Wk 7. On reputation, 22 February

After reading week, the character of the module undergoes a change. We move away from polemicized discussions of the character and longevity of contemporary institutions to look at how some key institutions function. Rather than describing the shape of the machine we go and examine its insides. One of the features of contemporary political economy of science is the global market for education and credentials. We answer questions like how it has come about and how universities have become its leading champions. One of the contradictory outcomes of this regime is the attention given to league tables, and various performance metrics that make institutions globally comparable. We discuss how these have reframed the agenda of scientific research.

Hazelkorn, E. (2015) *Rankings and the reshaping of higher education ; The battle for world-class excellence*. Basingstoke: Palgrave Macmillan, chapter 1, "Globalization and the reputation race."

Wk 8. On intellectual property, 29 February

Sometime in the early 1980s a series of legislative and court decisions triggered a transformation in how University research was valued and imagined in the USA, soon to spread globally. Research institutions funded by federal funds were no longer required to relinquish intellectual property to the government. Individual scientists and universities, sometimes competitively and litigiously, could now appropriate the economic gains from knowledge funded by the public purse. We discuss the long history of intellectual property, how it began as an anti-competitive tool in corporate control of markets, how it gained a new set of functions

in this new policy environment allowing corporate actors to reach into public research results and materials. The very dark picture of corporate capture gleaned in the early 2000s needs some updating so we all discuss how the Global South are using the same tools to rebalance power asymmetries.

van Wichelen, S. (2023) "After biosovereignty: The material transfer agreement as technology of relations" *Social Studies of Science* 53(4): 599-621.

Wk 9. On assetisation, 7 March

Scholars in the social sciences have long noted a creeping financialisation of public and private life. What they mean is the intrusion of a logic of promissory value and return when making decisions about how to organize collective life. In this literature, the asset is a category conceived as all and any entity that delivers a stream of returns, whether returns are monetized or not. This orientation towards the future and the calculation of expected value structures our contemporary research system, not least the increasing importance that venture capital plays in deciding what technologies should be pursued and which should be abandoned. And arguably this orientation to the future is also responsible for the popularity of "missions" in contemporary science policy.

Birch, Kean and Fabian Muniesa (2020) "Introduction: Assetization and Technoscientific capitalism" in *Assetization*, MIT Press, 1-41.

Wk 10. On labour, 14 March

Labour is a crucial category in all theories of political economy and a crucial pillar of all past and present science policies, and yet labour is undertheorized and unappreciated when we turn to research on higher education. Are professors and researchers labourers or something else? As tenure, in its variously nationally specific guises, has been eroded over the years the market for professors and how professors are managed has changed dramatically. Understanding these changes explains why Universities lecturers regularly resort to industrial action and the picket lines and explains contemporary feelings of burn out and alienation among those that do "a job that they love."

Ginsberg, B. (2020) *The fall of the faculty : the rise of the all-administrative university and why it matters*. New York: Oxford University Press, chapter 6 "Research and Teaching at the All-Administrative University"

Wk 11. Review and discussion of UCL, 21 March

On our final week of the module we will review the themes of the previous four weeks (reputation, IP, assets, labour) and we will reflect on some of the features of UCL as a teaching and research institution. The purpose is to highlight fruitful convergences and divergences with the themes of the module and UCL's record to aid students in their research for their second assignment.

NO READING.

Important policy information

Details of college and departmental policies relating to modules and assessments can be found in the STS Student Handbook www.ucl.ac.uk/sts/handbook

All students taking modules in the STS department are expected to read these policies.
