SOC 4303

The Knowledge Society and Social Organization

Room – Meeting Time

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Office Address, Office Hours
Email, Phone

Syllabus, slides, grading rubrics, and other course materials will be made available on the teaching section of johnmclevey.com and on Blackboard / Learn.

COURSE DESCRIPTION

This course introduces students to three major areas of research on knowledge societies and social organization: (1) changes in the relationships between government, industry, and academia, (2) the organization of scientific and technical careers (especially gender gaps), and (3) the politics and governance of information and data.

LEARNING OBJECTIVES

This course is structured around two sets of learning objectives. The first are related to the substantive course content outlined above and described in detail in the Schedule of Topics and Readings (see page 4). When the course is finished, students will be able to explain (**1.1**) theories of and evidence for major institutional changes in the relationships between universities, governments, and industry; (**1.2**) changes in the organization of scientific and technical careers, including causes of and solutions for gender gaps in scientific and technical fields; and (**1.3**) changes in how information and data is gathered, governed, shared, and protected in information societies.

The second set of learning objectives will help students hone their skills in social science research and writing. By the end of this course students will have more experience (**2.1**) developing evidence-based arguments, (**2.2**) conducting systematic literature reviews, (**2.3**) co-authoring, and (**2.4**) writing for both research and policy audiences.

DELIVERABLES & EVALUATION

To do well in this course, you have to take the material seriously, consider it, and discuss it. If you have strongly held opinions, you should be willing to change your mind on the basis of empirical evidence, or rational and respectful argument. That said, you do not have to agree with the readings, with what I say about them, or what others say about them. When you disagree, **be respectful**.

Given the learning objectives outlined above, your grade in this course will be based on the tasks described below.

Table 1: Overview of Course Deliverables

Deliverable	Due Date	Authorship	Value
Reading Memos	Depends on Reading Selected	Single	10%
Project Proposal	TBA	Co-Authored	10%
Outline and Project Plan	TBA	Co-Authored	10%
Preliminary Analysis	TBA	Co-Authored	20%
Co-Authored Paper or Report	TBA	Co-Authored	40%
Course Participation	TBA	Co-Authored	10%

Reading Memos with Discussion Questions

Each person will write two reading memos on readings of their choice, and post them as text files or PDFs to Blackboard / Learn. Each memo should be roughly 300 words, and should not exceed 330 words. I expect them to be thoughtful, clear, and carefully edited. Your reading memos should identify core points from the readings, offer any thoughts or reactions, and raise discussion questions for class. You are encouraged but not required to relate them to any personal experiences. In order to make sure that there are reading memos and student-submitted discussion questions for each class, students will sign up for specific readings at the start of the term.

Each memo is due the night before the class where we will discuss the readings you selected. These memos will be shared with the class on Blackboard / Learn, where others can read and leave constructive and thoughtful comments. You are not required to comment on the memos, but doing so is a good way to contribute to class discussions. Disrespectful comments will not be tolerated. They will be as damaging to your participation grade as hostile behaviour in the classroom.

Collaborative Projects – Proposal, Plan, Preliminary Analysis, & Paper / Report

The main deliverable for this course is a collaborative project with multiple parts. It includes: (1) a short proposal, (2) a detailed outline and project plan, (3) a preliminary analysis of data and / or literature, and (4) **either** a co-authored paper written in the style of an empirical journal article **or** a white paper / policy report. I will provide extensive guidance and templates for writing both types of papers.

Project topics should fit into one of the three major course themes. You will submit your research articles or policy papers for everyone to read and comment on Blackboard / Learn. This collaborative project will help you learn important research and project management skills, and it will give you a chance to try your hand at research before you have to tackle a larger project, such as

a senior honors thesis.

The empirical articles or white papers must present and discuss relevant evidence, either in the form of original data analysis or a systematic review of existing literature. Early in the semester I will provide a description of multiple datasets (both quantitative and qualitative) that you may use in your projects. I will also provide advice and guidelines on how to review literature *systematically*.

Undergraduate students rarely co-author papers in university, but co-authoring is very common in most academic disciplines and in the public, private, and non-profit sectors. Importantly, being a good co-author is a skill that can be acquired and perfected. We will discuss co-authoring in detail throughout the semester, including how to avoid violating academic integrity policies. Together, we will develop group contracts and expectations documents that will set the context for your collaborations.

Your paper should be roughly 4,000 words before references, have standard margins, and use a 12 pt font. Students writing an empirical article should set aside roughly 2/3 of the paper for a formal presentation of findings and a bigger picture discussion. Do not use a cover page. Put the title and your names in *alphabetical order* at the top of the first page. You are free to use any citation style you like, but you must use it consistently.

I will discuss my grading criteria in more detail in our class meetings, and I am happy to discuss your work in progress or when it is finished. If you feel you have been given a grade you do not deserve, please wait 24 hours and then write a 500-600 word memo to me outlining the perceived error.

Although I will be giving you feedback on your work throughout the term, I encourage you to make appointments with people at the writing centre (on the fifth floor of Hamelin Hall – MHN 526). Their services are available to all students.

Participation / Engagement and Attendance

The quality of this course – like any other – depends on you being engaged. Your participation grade will be based on (a) contributions to class discussion, (b) small group discussion, and (c) attendance. Although I will not be assigning a participation grade until the end of the semester, I am happy to provide qualitative feedback on your participation throughout the semester.

Submitting Work & Late Policy

You will submit all work electronically on Blackboard / Learn. Please do not give me hard copies of anything, under any circumstances. I will deduct 5 points a day for every day, or part of a day, that your work is late, including weekends. I will not make exceptions without a medical note.

UNIVERSITY POLICIES & RESOURCES FOR STUDENTS

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SCHEDULE OF TOPICS & READINGS

Weekly Topics in Brief

The course is organized into 3 main parts. The first part (🏛, weeks 2-5) focuses on the changing relationships between universities, governments, and industry. The second part (💻, weeks 6-8) focuses on the nature of scientific and technical careers in knowledge societies, with a particular emphasis on gender gaps. Finally, the third part (🔨, weeks 9-12) covers the politics and governance of information, including the sociology and politics of the Internet.

1. Introduction: University Expansion and the Knowledge Society
2. (🏛) Academic Capitalism
3. (🏛) Triple-Helix Theory
4. (🏛) Innovation Systems Theory
5. (🏛) Networked Innovation
6. (💻) Organization of Scientific Work in Knowledge Economies
7. (💻) Gender and Careers in Computing
8. (💻) Gender and Careers in Science
9. (🔨) Sociology, History, and Politics of the Internet
10. (🔨) The Internet – Open or Closed?
11. (🔨) Regulating Code in the Information Age
12. (🔨) Information Security, Surveillance and Privacy + Conclusion

Topics and Readings

📅 **Week 01, Sept 01 - Sept 05:   Introduction: University Expansion and the Knowledge Society**

- Schofer and Meyer (2005) "The worldwide expansion of higher education in the twentieth century"
- Vallas and Kleinman (2008) "Contradiction, convergence and the knowledge economy: the confluence of academic and commercial biotechnology"

📅 **Week 02, Sept 08 - Sept 12:   Academic Capitalism (🏛)**

- Selections from Cantwell and Kauppinen (2014) *Academic capitalism in the age of globalization*

📅 **Week 03, Sept 15 - Sept 19:   Triple-Helix Theory (🏛)**

- Ranga and Etzkowitz (2013) "Triple Helix systems: an analytical framework for innovation policy and practice in the Knowledge Society"
- Etzkowitz and Leydesdorff (2000) "The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations"

📅 **Week 04, Sept 22 - Sept 26:   Innovation Systems Theory (🏛)**

- Harhoff and Lakhani (2016) "Fundamentals and New Perspectives" in *Revolutionizing Innovation*
- Benkler (2016) "When von Hippel Innovation Met the Networked Environment: Recognizing Decentralized Innovation"
- Lander (2013) "Sectoral collaboration in biomedical research and development"

📅 **Week 05, Sept 29 - Oct 03:   Networked Innovation (🏛)**

- Funk and Owen-Smith (2016) "A dynamic network measure of technological change"
- Owen-Smith and Powell (2004) "Knowledge networks as channels and conduits: the effects of spillovers in the Boston biotechnology community"

📅 **Week 06, Oct 06 - Oct 10:   Organization of Scientific Work in Knowledge Economies (🖥)**

- Leahey (2012) "Shaping Scientific Work: The Organization of Knowledge Communities"
- Powell and Snellman (2004) "The knowledge economy"

📅 **Week 07, Oct 13 - Oct 17:   Gender and Careers in Computing (🖥)**

Spend at least an hour browsing the resources for women, companies, and supporters available at http://shescoding.org. We will discuss them in class.

- Watch the documentary *Code: Debugging the Gender Gap* (Hauser Reynolds 2015)
- Selections from Abbate (2012) *Recoding Gender: Women's Changing Participation in Computing*

📅 **Week 08, Oct 20 - Oct 24:   Gender and Careers in Science (🖥)**

- Cain and Leahey (2014) "Cultural correlates of gender integration in science"
- Smith-Doerr (2004) "Flexibility and fairness: effects of the network form of organization on gender equity in life science careers"

📅 **Week 09, Oct 27 - Oct 31:   Sociology, History, and Politics of the Internet (🔨)**

- Selections from Abbate (2000) *Inventing the Internet*

📅 **Week 10, Nov 03 - Nov 07:   The Internet – Open or Closed? (🔨)**

- Selections from Zittrain (2008) *The Future of the Internet – And How to Stop It*
- Selections from Palfrey and Gasser (2012) *Interop: The Promise and Perils of Highly Interconnected Systems*
- Tufekci (2016) "As the Pirates Become CEOs: The Closing of the Open Internet"

📅 **Week 11, Nov 10 - Nov 14:   Regulating Code in the Information Age** (⚒)

- Selections from Brown and Marsden (2013) *Regulating Code: Good Governance and Better Regulation in the Information Age*

📅 **Week 12, Nov 17 - Nov 21:   Information Security and Privacy + Conclusion** (⚒)

- Neff and Nafus (2016) *Self-Tracking*
- Wood, O'Brien, and Gasser (2016) "Privacy and Open Data Research Briefing"

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Palfrey, John Gorham, and Urs Gasser. 2012. *Interop: The Promise and Perils of Highly Interconnected Systems.* Basic Books.

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Tufekci, Zeynep. 2016. "As the Pirates Become Ceos: The Closing of the Open Internet." *Daedalus* 145(1): 65–78.

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Wood, Alexandra, David O'Brien, and Urs Gasser. 2016. "Privacy and Open Data Research Briefing."

Zittrain, Jonathan. 2008. *The Future of the Internet–and How to Stop It.* Yale University Press.