The Rise of the Neurosciences

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Office Hours: Tu 2:00 – 4:00 pm  
(and by appointment)

Course description

This course examines the expansion and proliferation of the neurosciences from the early modern period to the present. We will investigate the recent claim that we are living in the midst of a "neuro-revolution" with vast social, political, and economic consequences around the globe. Yet at the same time, we will look to the past for similar moments of transition and transformation of the modern sciences abetted by experiments on the nervous system. Students will analyze texts from Descartes to Damasio, paying attention to the rhetorical explanatory
power of certain epistemic objects and instruments--samples of brain tissue, synaptic networks, clinical case histories, MRI scans--as well as the institutional power-shifts that sanctioned research practices such as vivisection, phrenology, electrophysiology, and functional imaging. Through our reading of primary sources by philosophers and physicians and secondary sources by historians and sociologists, this course will explore what is at stake in the "neuro-turn," and why it provokes such a mixed reaction of hope and hype, then as well as now.

**Course requirements**

**Class participation and presentation.** Discussion is vital. This seminar is an opportunity to practice the art of conversation, to listen closely to one another, to try out new lines of thought, new modes of articulation. That means, firstly, reading all of the texts assigned each week, making extensive notes, and preparing remarks well in advance of class. It also means showing respect for divergent opinions, asking one another sometimes difficult, searching questions in a spirit of civility and shared concern. Every student will be asked to lead the discussion once during the semester in order to cultivate the skill of fostering fluent and lively debate. They should plan to meet with me at least one week prior to go over how they intend to engage the readings and guide the conversation.

(30%)

**Midterm essay.** This paper will be an essay (5-7 pages) that engages with a specific theoretical position in the contemporary debates on the promise and/or problems of the neuro-turn. Students are required to meet with me at least two weeks prior to discuss their topic and scope.

(20%)

**Midterm essay, revised and rewritten.** This paper will be a complete re-writing of the previous essay. It is not merely a revised draft, but rather will be evaluated on the extent to which the student incorporates critical edits and displays a willingness to sharpen one’s line of argumentation and clarity of exposition. Students are required to meet with me but also encouraged to visit the Writing Workshop.

(20%)

**Final paper.** This paper (15-18 pages) will bear out an original thesis, drawing on both primary and secondary historical sources, on a topic of the student’s choice in consultation with me. Each student will be required to submit a one-page proposal and preliminary bibliography, due two weeks before reading period. The paper will be due in Moodle on December 14 at 10:00 p.m.

(30%)

**Grades**

Class participation, including one short presentation – 30%
Midterm essay – 20%
Midterm essay, revised final – 20%
Final paper – 30%
Disability Resources
Wesleyan University is committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in and benefit from its programs and services. To receive accommodations, a student must have a documented disability as defined by Section 504 of the Rehabilitation Act of 1973 and the ADA Amendments Act of 2008, and provide documentation of the disability. Since accommodations may require early planning and generally are not provided retroactively, please contact Disability Resources as soon as possible. If you believe that you might need accommodations for a disability, please contact Dean Patey in Disability Resources, located in North College, Room 021, or call 860/685-5581 for an appointment to discuss your needs and the process for requesting accommodations. I would be glad, too, to discuss this further with you, should you wish. Please let me know.

Honor Code
All course assignments are submitted under the Honor Code, as a commitment to the ethos of an academic community. Reference to or use of published or posted materials outside of the assigned readings must be properly cited. Please include the following pledge at the end of all graded assignments:

In accordance with the Honor Code, I affirm that this work is my own and all content taken from other sources has been properly acknowledged.

Schedule of Topics, Readings, and Assignments

September 7: Taking the temperature – What is the neuro?


https://mindhacks.com/2008/06/26/the-fmri-smackdown-cometh/.


September 14: Critiquing the critique – why ‘hype’? why ‘seduction’? why ‘threat’?


**September 21: Digging deeper – the social studies of neuroscience**


**September 28: Taking up ‘turns’ – what a critical historiography of neuroscience can offer**


October 5: Thinking with animal spirits – epistemic things in the early modern


ESSAY DUE: Submit via Moodle on or before October 11, 11:59 pm

October 12: Reflex and Romanticism – making sense with mechanism


October 19: Craniology, character, and criminality


**October 26: Language, localization, and the clinic**


**ESSAY RE-WRITE DUE**: Submit via Moodle on or before November 1, 11:59 pm

**November 2: The birth of the neuron – techniques of visibility and trust**


University Press. (Ch. 1 "Setting the Stage: The Neuron Doctrine and the Synapse," p. 1-7; Ch. 8 "War of Soups and Sparks," p. 121-35)

November 9: **Besides the brain – Freud and the defenses of psychoanalysis**


November 16: **Breaking brains – psychosurgery and cybernetics**


November 22: **One-page proposal and preliminary bibliography due**

November 23: **THANKSGIVING RECESS**

November 30: **Windows onto minds – the life of brain imaging**


December 7: **False alarms? – Ethics and emotions**


**FINAL PAPER DUE** – submit via Moodle on or before December 14, 10:00 pm