

**Feminism, Sexuality, and Neuroethics (WGS 385-005/NBB 370-001)
Spring 2012**

Instructors:

Cyd Cipolla

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Course Schedule:

Course Location:

Course Description:

Neuroethics is an emerging field that considers the interaction between neuroscience, behavioral biology, society, and ethics. Major questions of concern within neuroethics include: How do scientific discoveries impact society? How can scientific researchers more fully understand the ethical implications of their work? The intersection of feminist science studies with the field of Neuroethics produces new ways to ask these questions, considering, for example, not only how science impacts society, but how scientific research is shaped by cultural assumptions. Ultimately, students in this class will combine the critical thinking skills from both of these fields to answer the question: How can we all be responsible consumers and/or producers of neuroscientific knowledge?

Students in this class will learn the major topics and themes within the field of Neuroethics through critically examining historical and contemporary scientific research on sexuality and the brain. Each unit of the class focuses on a different area within the field of scientific research on sexuality and the brain. Students will read the significant scientific study or studies on the topic alongside reports about the study in mainstream news media outlets, and then follow this by reading critiques of the work from both inside and outside the scientific community.

This class is open to students in the sciences, social sciences, and humanities. No previous experience with neuroscience research or sexuality research is required.

Course Objectives:

1. To develop the skills required to critically read and understand scientific articles in the field of neuroscience
2. To develop the skills required to examine the cultural assumptions influencing scientific research on sexuality and the brain and to analyze the ethical and political implications of this research for society
3. To develop an understanding of how neuroscientific research is conveyed to the public through media

Texts:

All course readings are articles. They will be available on e-reserves through the library and/or on the course Blackboard site.

Assignments:

Participation and Attendance: Students are expected to come to class each session having *actively* read the article(s) assigned for that date on the syllabus. Class participation consists of asking questions when material is unclear and engaging in productive, relevant, critical conversation during discussion periods. **(10%)**

Short Writing Assignments: For most weeks, students will write short writing assignments in response to the assigned reading (~250 words) designed to train them as critical and effective readers. On other weeks, students will have short writing assignments in preparation for the final paper/research proposal. Specific instructions will be given in class. **(30%)**

Midterm: In the eighth week of class, students will undertake a two part project. For the first class, half of the students will act as members of scientific research teams. Each team will be given the hypothesis and data from an experiment. The students will have to write up conclusions based on those results as if they are preparing the discussion section of a journal article. Then, they will present those findings to the other half of the class, who will represent members of the media and the public. This half of the students will then write up articles based on the research to be posted on the class blog. The next class, the students will switch roles. **(30%)**

Final: Students can choose to prepare **A)** A 12-15 page research or analytical paper on a topic related to class, or **B)** A 12-15 page research proposal describing a research project related to the class. Students will choose their path at midterm and will work with the instructors to design and complete the requirements for their chosen topic or question. **(30%)**

Policies:

Absences: Attendance is required. You are allowed up to three absences without penalty. Additional absences will result in a lower grade in the course.

Late Work: All work is due at the beginning of class on the due date listed. Late work will not be accepted.

Writing: A style and citation guide will be distributed in class. If you are having difficulty with your writing please come see one of us during our office hours or make arrangements to get extra help at the writing center.

Grades:

A	100-94%	B-	83-80%	D+	69-67%
A-	93-90%	C+	79-77%	D	66-60%
B+	89-87%	C	76-74%	F	<60%
B	86-84%	C-	73-70%		

Academic Honesty: You are required to abide by the Emory Honor Code, available online at http://college.emory.edu/current/standards/honor_code.html. All cases of suspected academic dishonesty will be referred to the Emory Honor Council.

Special Needs: If you need an accommodation for any type of physical, medical, or learning disability, please meet with one of us as soon as possible. In addition, if you have not already done so, you need to contact the Office of Disability Services at (404) 727-9877.

Contacting Instructors: Please include both instructors on ALL emails.

Revisions to Syllabus: We reserve the right to make changes to this syllabus as needed. Revisions will be posted on Blackboard.

Course Schedule:

Introduction

Wednesday, Jan 18: Introduction to the Course

Friday, Jan 20: Intro to Neuroethics

- Wolpe PR. 2004. "Ethics and Social Policy in Research on the Neuroscience of Human Sexuality." *Nature Neuroscience*. 7: 1031-1033.
- Farah MJ. 2005. "Neuroethics: the Practical and the Philosophical." *Trends Cogn Sci*. (1): 34-40.

Monday, Jan 23: Intro to Neuroethics

- Farah MJ, Wolpe PR. 2004. "Monitoring and Manipulating Brain Function: New Neuroscience Technologies and their Ethical Implications." *Hastings Cent Rep*. 4(3): 35-45.

Wednesday, Jan 25: Intro to Feminist Science Studies

- Fox Keller, Evelyn. 1982. "Feminism and Science." *Signs*. 7(3); 589-602.

Friday, Jan 27: Intro to Feminist Science Studies

- Schiebinger, Londa. 1989. "More Than Skin Deep: The Scientific Search for Sexual Difference." from *The Mind Has No Sex? Women in the Origins of Modern Science*. Cambridge, MA: Harvard University Press, 189-213.
- **Reading Response 1 Due**

Monday, Jan 30: Brain Basics

- Kandel E, Schwartz J, Jessell T. 2000. "Chapter 1: The Brain and Behavior." from *Principles of Neural Science 4th Edition*. McGraw-Hill Medical, 5-18.

Wednesday, Feb 1: Imaging the Brain: Neuroscience Research Methods I

- Baars BJ, Gage NM. "Chapter 4: The Tools: Imaging the Living Brain." from *Cognition, Brain, and Consciousness, Second Edition: Introduction to Cognitive Neuroscience*. Academic Press, 95-126.

Friday, Feb 3: Imaging the Brain: Neuroscience Research Methods II

- Joyce, Kelly. 2005. "Appealing Images: Magnetic Resonance Imaging and the Production of Authoritative Knowledge." *Social Studies of Science*. 35(3): 437-462.
- **Reading Reponse 2 Due**

Historical Case Study

Monday, Feb 6

- Krafft-Ebing, Richard von. 1889 (trans. 1965). "General Pathology," from *Psychopathia Sexualis*, New York, NY: Arcade, 32-52.

Wednesday, Feb 8

- Oosterhaus, Harry. 2000. "Classifying and Explaining Perversion," from *Stepchildren of Nature: Krafft-Ebing, Psychiatry, and the Making of Sexual Identity*. Chicago, IL: University of Chicago Press, 43-55.

Friday, Feb 10

- Schultheiss, Dirk and Sidney Glima. 2010. "Highlights from the History of Sexual Medicine." *J Sex Med*;7:2031–2043.
- **Reading Response 3 Due**

Contemporary Understandings of the Brain and Sexual Desire

Monday, Feb 13

- Fisher HE, Aron A, Mashek D, Li H, Brown LL. 2002. "Defining the Brain Systems of Lust, Romantic Attraction, and Attachment." *Arch Sex Behav*. 31(5): 413-9.

Wednesday, Feb 15

- Toates F. 2009. "An Integrative Theoretical Framework for Understanding Sexual Motivation, Arousal, and Behavior." *J Sex Res*. 46(2-3): 168-93.

Friday, Feb 17

- Lorber, Judith. 1994. "How Many Opposites? Gendered Sexuality." from *Paradoxes of Gender*. New Haven, CT: Yale University Press, 55-79.
- **Reading Response 4 Due**

Topic: Gender Differences in Sexuality

Monday, Feb 20

- Hamann S, Herman RA, Nolan CL, Wallen K. 2004. "Men and Women Differ in Amygdala Response to Visual Sexual Stimuli." *Nat Neurosci*. 7(4): 411-6.
- Canli T, Gabrieli JD. 2004. "Imaging Gender Differences in Sexual Arousal." *Nat Neurosci*. 7(4): 325-6.

Wednesday, Feb 22

- DesAutels, Peggy. 2010. "Sex Differences and Neuroethics." *Philosophical Psychology*. 23(1): 95-111.

Friday, Feb 24

- Fausto-Sterling, Anne. 2000. "Chapter 5: Sexing the Brain: How Biologists Make A Difference." from *Sexing the Body: Gender Politics and the Construction of Sexuality*. New York, NY: Basic Books, 115-145.
- **Reading Response 5 Due**

Topic: The "Gay Brain" Part I

Monday, Feb 27

- LeVay S. 1991. "A Difference in Hypothalamic Structure between Heterosexual and Homosexual Men." *Science*. 253(5023): 1034-1037.

Wednesday, Feb 29

- Barinaga M. 1991. "Is Homosexuality Biological?" *Science*. 253(5023): 956-957.
- Suplee, Curt. "Brain May Determine Sexuality; Node Seen as Key To Gay Orientation." *The Washington Post*. Aug 30, 1991.

Friday, Mar 2

- Hegarty, Peter. 1997. "Materializing the Hypothalamus: A Performative Account of the 'Gay Brain.'" *Feminism and Psychology*. 7(3): 355-372.

Monday, March 5 – Friday, March 9

Midterm Project

Monday, Mar 12 – Friday, March 16

Spring Break – No class

Topic: The "Gay Brain" Part II

Monday, Mar 19

- Savic I, Lindstrom P. 2008. "PET and MRI Show Differences in Cerebral Asymmetry and Functional Connectivity between Homo- and Heterosexual Subjects." *PNAS*. 105(27): 9403-9408.
- Park, Alice. "What the Gay Brain Looks Like." *Time*. Tuesday, June 17, 2008.

Wednesday, March 21

- Stein, Ed. 1999. "Critique of the Emerging Research Program." from *The Mismeasure of Desire: The Science, Theory and Ethics of Sexual Orientation*. Oxford; New York: Oxford University Press, 190-228.

Friday, March 23

- Sedgwick, Eve Kosofsky. 1991. "How to Bring Your Kids up Gay." *Social Text*. 29: 18-27.
- **Reading Response 6 Due**

- **Students must meet with one of the instructors regarding their final paper/research proposal by this date**

Topic: Sex Addiction/Hypersexuality

Monday, March 26

- Miner MH, Raymond N, Mueller BA, Lloyd M, Lim KO. 2009. "Preliminary Investigation of the Impulsive and Neuroanatomical Characteristics of Compulsive Sexual Behavior." *Psychiatry Res.* 174(2): 146-51.
- Bostwick JM, Bucci JA. 2008. "Internet Sex Addiction Treated with Naltrexone." *Mayo Clin Proc.* 83(2): 226-30.

Wednesday, March 28

- Hyman, S.E. (2007). "The Neurobiology of Addiction: Implications for Voluntary Control of Behavior." *The American Journal of Bioethics.* 7(1): 8-11.

Friday, March 30

- Irvine JM. 1995. "Reinventing Perversion: Sex Addiction and Cultural Anxieties." *Journal of the History of Sexuality.* 5(3): 429-450.
- **Question for Final Due**

Topic: Sexual Desire Disorders

Monday, April 2

- Bianchi-Demicheli, F., Cojan, Y., Waber, L., Recordon, N., Vuilleumier, P. and Ortigue, S. 2011. "Neural Bases of Hypoactive Sexual Desire Disorder in Women: An Event-Related fMRI Study." *The Journal of Sexual Medicine.* 8(9): 2546–2559.

Wednesday, April 4

- Stahl SM. 2010. "Targeting Circuits of Sexual Desire as a Treatment Strategy for Hypoactive Sexual Desire Disorder." *J Clin Psychiatry.* 71(7): 821-2.

Friday, April 6

- Tiefer L. 2006. "Female Sexual Dysfunction: a Case Study of Disease Mongering and Activist Resistance." *PLoS Med.* 3(4): 178.
- **Reading Response 7 Due**

Topic: Sexual Offenders/Paraphelias

Monday, April 9

- Ponseti J, Granert O, Jansen O, Wolff S, Beier K, Neutze J, Deuschl G, Mehdorn H, Siebner H, Bosinski H. 2011. "Assessment of Pedophilia Using Hemodynamic Brain Response to Sexual Stimuli." *Arch Gen Psychiatry.* Online First.

Wednesday, April 11

- Jordan K, Fromberger P, Stolpman G, Müller JL. 2011. “The Role of Testosterone in Sexuality and Paraphilia-A Neurobiological Approach. Part II: Testosterone and Paraphilia.” *J Sex Med.* 8(11): 3008-29.

Friday, April 13

- Schiltz K, Witzel J, Northoff G, Zierhut K, Gubka U, Fellmann H, Kaufmann J, Tempelmann C, Wiebking C, Bogerts B. 2007 “Brain pathology in pedophilic offenders: evidence of volume reduction in the right amygdala and related diencephalic structures.” *Arch Gen Psychiatry.* 64(6): 737-46.
- **Annotated Bibliography or Literature Review for Final Due**

Monday, April 16

- Healy, Melissa. “Diagnosing Pedophilia with a Brain Scan.” *Los Angeles Times.* October 3, 2011.
- “To Catch a Predator... With a Brain Scanner?”
<http://neuroskeptic.blogspot.com/2011/10/to-catch-predator-with-brain-scanner.html>

Wednesday, April 18

- Dressing H, Sartorius A, Meyer-Lindenberg A. 2008. “Implications of fMRI and Genetics for the Law and the Routine Practice of Forensic Psychiatry.” *Neurocase.* 14(1): 7-14.

Friday, April 20

- Greene and Cohen. 2004. “For the Law, Neuroscience Changes Nothing and Everything” *Philos Trans R Soc Lond B Biol Sci.* 359(1451): 1775-85.
- **Reading Response 8 Due**

Topic: Monogamy

Monday, April 23

- Young LJ. 2009. “Being Human: Love: Neuroscience reveals all.” *Nature.* 457(7226): 148
- Lim MM et al. 2004. “Enhanced Partner Preference in a Promiscuous Species by Manipulating the Expression of a Single Gene.” *Nature.* 429: 754-757.
- Fink S, Excoffier L, and Heckel G. 2006. “Mammalian Monogamy is not Controlled by a Single Gene.” *PNAS.* 103(29): 10956-10960.

Wednesday, April 25

- Savulescu, Julian, and Anders Sandberg. 2008. “Neuroenhancement of Love and Marriage: The Chemicals Between Us.” *Neuroethics.* 1: 31-44.
- Wade, Nicholas. “DNA of Voles May Hint at Why Some Fathers Shirk Duties.” *The New York Times.* June 10, 2005.

Friday, April 27

- Ritchie A and Barker M. 2006. ““There Aren’t Words for What We Do or How We Feel So We Have To Make Them Up’: Constructing Polyamorous Languages in a Culture of Compulsory Monogamy.” *Sexualities*. 9(5): 584-601.
- **Final Outline (or Draft - optional) Due**

Wrap-Up

Monday, April 30 – Wrap Up and Work-shopping Drafts

Final Exam Period - TBA