



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Gender & Women's Studies 533: Feminist Neuroscience

Dr. Lewis (she/her) | aklewis2@wisc.edu

Spring 2021, 3 Credits

Tuesday/Thursday 5:30-6:45 in BBCollaborate

Syllabus is subject to change

Course Description

Feminist Neuroscience is an interdisciplinary course unlike most other GWS or other science courses. We will explore neuroscience narratives as they relate to sex, gender, and sexuality. We will examine how white and cisheteronormative biases shape the production of scientific knowledge. Readings include original scientific journal articles as well as contemporary feminist neuroscience works by Gina Rippon, Daphna Joel, Cordelia Fine, and Deboleena Roy. By the end of this course, students should be able to analyze biological texts and identify gendered language and cisheteronormative biases.

Requisites: *Sophomore standing*

Level: *Intermediate*

Breadth: *Biological Science*

L&S Credit Type: *Counts as LAS credit (L&S)*

Meeting Time and Location: *Tuesdays & Thursdays 5:30-6:45 in BBCollaborate, accessed via Canvas*

Instructional Modality: *Remote/Online (synchronous)*

This course follows the Traditional Carnegie Definition of a Credit Hour: One hour (i.e. 50 minutes) of classroom or direct faculty/instructor instruction and a minimum of two hours of out of class student work each week over approximately 15 weeks, or an equivalent amount of engagement over a different number of weeks.

For this 14-week semester, a 3-credit class is a total of 135 effort hours, averaging 9.6 hours per week.

Regular and Substantive Student-Instructor Interaction

This course meets regular and substantive student-instructor interaction requirements through twice weekly synchronous class meetings with direct instruction. Group discussions are facilitated during class meetings in keeping with expectations of substantive interactions. Assignments are assessed in keeping with expectations of substantive interaction. Regular interaction occurs in twice weekly class meetings and is available during office hours twice weekly. The instructor has also set aside class time for one-on-one meetings throughout the semester.

Instructor

Instructor Title and Name: *Kelsey Lewis, PhD (she/her)*

Instructor Availability: *Appointments available by email; Office Hours Tuesdays and Thursdays 2:30-3:30 on BBCollaborate (unless otherwise indicated)*

Instructor Email: aklewis2@wisc.edu

Department of Gender & Women's Studies

University of Wisconsin-Madison

Sterling Hall 475 North Charter Street Madison, Wisconsin 53706

e-mail: aklewis2@wisc.edu www.alicekelseylewis.net

Course Learning Outcomes

In this course we will...

...learn to read neuroscience papers with a feminist lens

...identify assumptions about sex, gender, and sexuality in neuroscience research

...contextualize scientific research within its historical and social influences

Grading

Letter grade conversions from point system

- A 930-1000 points
- AB 890-929 points
- B 830-889 points
- BC 780-829 points
- C 700-779 points
- D 601-699 points
- F 0-600 points

Assessment – 1000 points total

- 93 points of Neuroanatomy
 - 12 points - Netter's Neuroscience Coloring Book Plates 1.1, 2.2, 2.3, 2.4 (due 2/5)
 - 6 points - Netter's Neuroscience Coloring Book Plates 2.5, 2.6 (due 2/12)
 - 9 points - Netter's Neuroscience Coloring Book Plates 2.7, 2.8, 2.9 (due 2/19)
 - 9 points - Netter's Neuroscience Coloring Book Plates 8.1, 8.2, 8.3 (due 2/26)
 - 9 points - Netter's Neuroscience Coloring Book Plates 8.4, 8.5, 8.6 (due 3/5)
 - 9 points - Netter's Neuroscience Coloring Book Plates 8.7, 8.8, 8.9 (due 3/12)
 - 6 points - Netter's Neuroscience Coloring Book Plates 8.10, 8.11 (due 3/19)
 - 9 points - Netter's Neuroscience Coloring Book Plates 8.12, 8.13, 8.14 (due 3/26)
 - 6 points - Netter's Neuroscience Coloring Book Plates 11.1, 11.2 (due 4/2)
 - 6 points - Netter's Neuroscience Coloring Book Plates 11.3, 11.4 (due 4/9)
 - 12 points - Netter's Neuroscience Coloring Book Plates 11.5, 11.6, 11.7, 11.8 (due 4/16)
- 689 points of Other Assignments
 - 12 points - Assignment 1 Entry Survey & Orientation (due 1/27)
 - 15 points - Assignment 2 Find earliest paper or publication that claims to demonstrate that "men and women have different sized brains" (due 2/19)
 - 200 points - Assignment 3 *The Female Brain* paper (due 3/12)
 - 200 points - Assignment 4 Group Teach Presentations (due dates vary by sign-up)
 - 250 points - Assignment 5 Book Review (includes small group meetings) (due 4/30)
 - 12 points - Assignment 6 Exit Survey (due 4/30)
- 165 points of Quizzes
 - 100 points - Quiz 1 - Identifying Problematic Language in *Neuroscience* (textbook) + 200 word response
 - 65 points - Quiz 2 Neuroanatomy & Neuro Basics
- 53 points of Participation
 - 53 points - Class participation (including attendance) and discussions

Extra credit:

- 3 extra Netter's Plates (3 points each; aesthetically best extra credit plate gets extra 3 points (this is at instructor's discretion—will be selected by a panel of interdisciplinary scholars)
- Meet one-on-one with Dr. Lewis in Week 2 during Office Hours (5 points)
- For Assignment 2, finding *the oldest* paper/publication among the class (5 points)

Deadlines:

- Contact Dr. Lewis as soon as possible if you become ill or have a personal issue, family emergency, etc. Extensions will be given at the instructor's discretion.
- Unexcused late work will lose 10% of possible points per day late and will not be accepted after it's more than one week late.

COVID and Other Personal Accommodations

This is an exceptionally chaotic and difficult time. While you have absolutely no obligation to disclose the status of COVID or any other illness or issue, you may choose to notify your instructor if and when it is relevant to class attendance and/or assignment deadlines. There are countless reasons why you may need a few extra days on an assignment, may need to miss class, etc., such as personal illness, family responsibility, mental health, job responsibilities. Please contact Dr. Lewis as soon as you see fit, so that she can best support you to stay on track for the semester.

Course Website, Learning Management System & Digital Instructional Tools

<https://canvas.wisc.edu/courses/240977>

All class lectures and meetings will occur in the Course Main Room in BBCollaborate, embedded in Canvas.

Graduate Students

If you are a graduate student at the University of Wisconsin-Madison taking this course for graduate credit, you will complete all of the requirements for the course and a Feminist Manuscript Analysis and Rewrite assignment due 4/30:

You will write a 5-page (double-spaced) paper that analyzes a peer-reviewed published scientific paper from your area of interest *and* you will rewrite the scientific paper.

Your paper should give background on the field and the biases within the field. Language should be assessed (how terms such as “gender” and “sex” are used, what gendered language may be present such as “coy female,” etc.). Methods used by the authors should be addressed (example: if sex is considered a biological variable, how did they assign or determine sex?). Do you agree with how conclusions are drawn from the data? If this paper received attention in the popular media, did the narratives presented by popular media accurately distill the data? What biases can you find and what factors may have contributed?

The rewrite should correct biases, language, and you may take creative license to change methods, data, results, conclusions, etc. Explain and justify the changes you make in your 5-page paper.

Required Books & Other Course Materials

Title: *Netter's Neuroscience Coloring Book*

- **Author:** David Felten & Mary Maida
- **ISBN:** 9780323509596
- **Publisher:** Elsevier
- **Year:** 2019

Title: *Molecular Feminisms: Biology, Becomings, and Life in the Lab*

- **Author:** Deboleena Roy
- **Publisher:** University of Washington
- **Year:** 2018
- *Molecular Feminisms* is available as an e-book through UW Libraries (there is no need to purchase this book).

Title: *Model Behavior: animal experiments, complexity, and the genetics of psychiatric disorders*

- **Author:** Nicole Nelson
- **Publisher:** University of Chicago
- **Year:** 2018
- *Model Behavior* is available as an e-book through UW Libraries (there is no need to purchase this book).

Other Materials: Coloring pencils

Book for Book Review Project: You will be required to read one additional book that may or may not have e-book options available. The first reading assignment from this book is due March 9th. No more than 6 students may read the same book, so do not purchase the book before you have signed up! You must select which book you will read by 2/26 and sign up [here](#).

Book Review Options:

- Jordan-Young, R. (2010). *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA; London: Harvard University Press.
- Fine, C., (2011). *Delusions of Gender*. New York; London: W. W. Norton.
- Fine, C., (2017). *Testosterone-Rex: Myths of Sex, Science, and Society*. New York; London: W. W. Norton
- Rippon, G. (2019). *Gender and Our Brains: How New Neuroscience Explodes the Myths of the Male and Female Minds*. New York: Vintage Books (Penguin Random House LLC).
- Jordan-Young, R., & Karkazis, K. (2019). *Testosterone: An Unauthorized Biography*. Cambridge, MA; London: Harvard University Press.
- Joel, D., & Viskhanski, L. (2019). *Gender Mosaic: Beyond the Myth of the Male and Female Brain*. New York; Boston; London: Little, Brown Spark.
- Rippon, G. (2019). *The Gendered Brain: The New Neuroscience That Shatters the Myth of the Female Brain*. Penguin Books.

Technology: Campus provides students with [technology guidelines and recommendations](#) for instruction. Students should consult these resources prior to the start of the semester.

Assignments

Assignments to be submitted on Canvas & are due Fridays at 11:59 PM (other than Assignments 1 & 4).

Netter's Neuroscience Coloring Book Assignments

Netter's Neuroscience Coloring Book contains plates of brain and other neuro anatomy drawings, matched with descriptions of the structures and their functions. For each assigned plate, you need to read the descriptions and take your time making connections between the descriptions and the drawings. Then color the different labeled structures as indicated. Be sure to fill in the key that assigns the different colors to different structures. 31 of these plates are assigned for 3 points each. For the Canvas submission, upload a photo of each plate to Canvas. Finally, Quiz 2 will draw from these assignments.

Plates 1.1, 2.2, 2.3, 2.4 (due 2/5)

Plates 2.5, 2.6 (due 2/12)

Plates 2.7, 2.8, 2.9 (due 2/19)

Plates 8.1, 8.2, 8.3 (due 2/26)

Plates 8.4, 8.5, 8.6 (due 3/5)

Plates 8.7, 8.8, 8.9 (due 3/12)

Plates 8.10, 8.11 (due 3/19)

Plates 8.12, 8.13, 8.14 (due 3/26)

Plates 11.1, 11.2 (due 4/2)

Plates 11.3, 11.4 (due 4/9)

Plates 11.5, 11.6, 11.7, 11.8 (due 4/16)

In addition to neuroanatomy assignments, there are 6 main assignments:

- Assignment 1 Entry Survey & Orientation (due 1/27)
- Assignment 2 Identify earliest paper or publication that claims to demonstrate that "men and women have different sized brains" (due 2/19)
- Assignment 3 *The Female Brain* paper (due 3/12)
- Assignment 4 Group Teach Presentations (2/23, 2/25, or 3/25)

- Assignment 5 Book Review (due 4/30)
- Assignment 6 Exit Survey (due 4/30)

Assignment 1 Entry Survey & Assignment 6 Exit Survey are short surveys at the beginning and end of the semester that will help your instructor understand your background for the class, your interests, and then what you enjoyed or found challenging during the semester. Due the first and last weeks of the semester, respectively.

Assignment 2

Find earliest paper or publication that claims to demonstrate that “men and women have different sized brains” (due 2/19). Upload PDF of paper, essay, etc. to assignment in Canvas, and include citation, written in APA format, in assignment comment box.

Assignment 3

The Female Brain paper (due 3/12)

List the gendered assumptions about brains present in the movie *The Female Brain*, then choose one to research. What data is this based on? Are the data accurately represented by statements made in this movie?

Format: informal list, followed by 3-page paper on the assumption you chose to research, cite at least 10 peer-reviewed, data-based scientific journal articles (reviews do not count, include both animal and human articles).

Assignment 4 Group Teach Presentations:

Groups of 5 students will present a scientific journal article during Module 2. Presentations should be approximately 20 minutes. Groups will contextualize the paper and present its content.

Presentation dates to choose from: 2/23, 2/25, 3/25

Sign up for presentations [here](#). Each student is designated with a particular role in research and presentation. The roles are:

- Student 1 – historical and social context of the paper
- Student 2 – scientific background
- Student 3 – methods
- Student 4 – results
- Student 5 – discussion

Group Teach Presentation Options (articles with presentation dates):

- (Tues 2/23) Dekaban, A. S., & Sadowsky, D., 1978, *Annals of Neurology*, “Changes in brain weights during the span of human life: Relation of brain weights to body heights and body weights.”
- (Tues 2/23) Gur et al., 2002, *Cerebral Cortex*, “Sex Differences in Temporo-limbic and Frontal Brain Volumes of Healthy Adults”
- (Thurs 2/25) Gur et al., 1999, *J Neurosci*, “Sex Differences in Brain Gray and White Matter in Healthy Young Adults: Correlations with Cognitive Performance”
- (Thurs 2/25) Haier et al., 2005, *NeuroImage*, “The Neuroanatomy of General Intelligence: Sex Matters”
- (Thurs 2/25) Witelson et al., 2006, *Brain*, “Intelligence and brain size in 100 postmortem brains: sex, lateralization and age factors”
- (Thurs 3/25) LeVay, S., 1991, *Science*, “A Difference in Hypothalamic Structure Between Heterosexual and Homosexual Men”
- (Thurs 3/25) Zhou et al., 1995, *Nature*, “A sex difference in the human brain and its relation to transsexuality”

- (Thurs 3/25) Taziaux et al., 2016, *J Clinical Endocrinology and Metabolism*, Kisspeptin Expression in the Human Infundibular Nucleus in Relation to Sex, Gender Identity, and Sexual Orientation.

Assignment 5 Book Review

A book review tells you what a book is about, as well as what the book is trying to do. It summarizes the content, and also analyzes the book and includes your reactions to it.

Deadlines:

2/26 Select book ([Sign-Up Sheet](#))

3/9 Read Chunk 1

3/11 Read Chunk 2, small group meetings during class time

4/6 Read Chunk 3

4/8 Read Chunk 4, small group meetings during class time

4/30 Book Review Due

Your book review should have the following components:

- 1) Introduction (1-2 paragraphs)
 - a) Bibliographic information (author, title, publication information)
 - b) Brief overview of theme, purpose, and your evaluation
- 2) Content summary (2 pages)
 - a) Brief summary of key points of each chapter
 - b) Paraphrase info but use short quotes as appropriate
- 3) Evaluation and conclusion (1 page)
 - a) Share your opinion about the book

While reading the book, consider:

What are the authors goals with this book? What are the books main points? What evidence is provided to support these points? Is the book well written? Who would benefit from or enjoy reading this book?

Book Review [Sign-Up Sheet](#)

Book Review Options:

- Jordan-Young, R. (2010). *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA; London: Harvard University Press.
- Fine, C., (2011). *Delusions of Gender*. New York; London: W. W. Norton.
- Fine, C., (2017). *Testosterone-Rex: Myths of Sex, Science, and Society*. New York; London: W. W. Norton
- Rippon, G. (2019). *Gender and Our Brains: How New Neuroscience Explodes the Myths of the Male and Female Minds*. New York: Vintage Books (Penguin Random House LLC).
- Jordan-Young, R., & Karkazis, K. (2019). *Testosterone: An Unauthorized Biography*. Cambridge, MA; London: Harvard University Press.
- Joel, D., & Viskhanski, L. (2019). *Gender Mosaic: Beyond the Myth of the Male and Female Brain*. New York; Boston; London: Little, Brown Spark.
- Rippon, G. (2019). *The Gendered Brain: The New Neuroscience That Shatters the Myth of the Female Brain*. Penguin Books.

Quizzes

Quizzes are due Mondays at 11:59 PM

- Quiz 1 - Identifying Problematic Language in *Neuroscience* (textbook) + 200 word response (due 2/15)
- Quiz 2 - Neuroanatomy & Neuro Basics (due 4/5)

Privacy of Student Information & Digital Tools: Teaching & Learning Analytics & Proctoring Statement

The privacy and security of faculty, staff and students' personal information is a top priority for UW-Madison. The university carefully reviews and vets all campus-supported digital tools used to support teaching and learning, to help support success through [learning analytics](#), and to enable proctoring capabilities. UW-Madison takes necessary steps to ensure that the providers of such tools prioritize proper handling of sensitive data in alignment with FERPA, industry standards and best practices. Under the Family Educational Rights and Privacy Act (FERPA which protects the privacy of student education records), student consent is not required for the university to share with school officials those student education records necessary for carrying out those university functions in which they have legitimate educational interest. 34 CFR 99.31(a)(1)(i)(B). FERPA specifically allows universities to designate vendors such as digital tool providers as school officials, and accordingly to share with them personally identifiable information from student education records if they perform appropriate services for the university and are subject to all applicable requirements governing the use, disclosure and protection of student data.

Privacy of Student Records & the Use of Audio Recorded Lectures

See information about [privacy of student records and the usage of audio-recorded lectures](#). Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

Campus Resources

- [University Health Services](#)
- [Undergraduate Academic Advising and Career Services](#)
- [Office of the Registrar](#)
- [Office of Student Financial Aid](#)
- [Dean of Students Office](#)

Course Evaluations

Students will be provided with an opportunity to evaluate this course and your learning experience. Student participation is an integral component of this course, and your confidential feedback is important to me. I strongly encourage you to participate in the course evaluation.

Exit Survey

There will be an exit survey for Assignment 6, where you can share your thoughts on the class with your instructor.

Digital Course Evaluation (AEFIS)

UW-Madison now uses an online course evaluation survey tool, [AEFIS](#). In most instances, you will receive an official email two weeks prior to the end of the semester when your course evaluation is available. You will receive a link to log into the course evaluation with your NetID where you can complete the evaluation and submit it, anonymously. Your participation is an integral component of this course, and your feedback is important to me. I strongly encourage you to participate in the course evaluation.

Students' Rules, [Rights & Responsibilities](#)

During the global COVID-19 pandemic, we must prioritize our collective health and safety to keep ourselves, our campus, and our community safe. As a university community, we must work together to prevent the spread of the virus and to promote the collective health and welfare of our campus and surrounding community.

UW-Madison [Badger Pledge](#)

[Campus Guidance on the use of Face Coverings](#)

This course meets remotely and does not require any campus visits.

Quarantine or Isolation Due to COVID-19

Student should continually monitor themselves for COVID-19 symptoms and get [tested](#) for the virus if they have symptoms or have been in close contact with someone with COVID-19. Student should reach out to instructors as soon as possible if they become ill or need to isolate or quarantine, in order to make alternate plans for how to proceed with the course. Students are strongly encouraged to communicate with their Instructor concerning their illness and the anticipated extent of their absence from the course (either in-person or remote). The instructor will work with the student to provide alternative ways to complete the course work.

Diversity & Inclusion Statement

[Diversity](#) is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Accommodations for Students with Disabilities Statement

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: [McBurney Disability Resource Center](#))

Academic Calendar & Religious Observances

See: <https://secfac.wisc.edu/academic-calendar/#religious-observances>

Class Content and Conversations

Content Warning

In this class, there may be occasional readings that make disturbing and/or offensive claims about race, gender, sex, and/or sexuality. Reading these does not imply that we agree with the statements. Rather, by reading 19th century texts that make claims about race and gender, we can contextualize subsequent scientific claims. Likewise, by reading more recent scientific articles that make claims about biological underpinnings of sex, gender, and/or sexuality, we can evaluate their methods and results, as well as the paradigm they're written within. Reading articles that engage in pathologization can be difficult. The readings in this class are more than scientific articles—the topics in this class are of a highly personal nature.

Class Conversations and Discussions:

In our interactions we...

- Presume positive intentions of your classmates.
- Approach disagreement with curiosity.
- Engage respectfully.

Our presentations, conversations, and discussions will be...

- Focused on the texts at hand and any prompts when applicable.
- In interest of moving the discussion forward, building on others' ideas.
- Focused on deepening collective understanding through inquiry, critical questions, and evidence.

Weekly Rhythm

	Monday	Tuesday	Wednesday	Thursday	Friday
Lecture		BBCollaborate 5:30-6:45 PM		BBCollaborate 5:30-6:45 PM	
Office Hours		BBCollaborate 2:30-3:30 PM		BBCollaborate 2:30-3:30 PM	
Readings	Complete before Tuesday lecture		Complete before Thursday lecture		
Netter's Anatomy Assignments	Work on throughout the week				Due Fridays at 11:59 PM
Assignment 4 Group Teach Presentations		In lecture on assigned day		In lecture on assigned day	
	Work on throughout the semester				
Writing & Other Assignments	Work on throughout the semester				Due Fridays at 11:59 PM
Quizzes	2 Quizzes Due Mondays 11:59 PM	Study for during preceding week			

Course Schedule

Class meets Tuesdays & Thursdays 5:30-6:45 PM

Office Hours Tuesdays & Thursdays 2:30-3:30 PM

Assignments are due Fridays 11:59 pm (except Assignment 1, due Wednesday 1/27)

Quizzes are due Mondays 11:59 PM

Module 1 Bringing Feminist Perspectives into the Lab

Week 1 Jan 25

Tuesday 1/26

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Course introduction & orientation, syllabus & assignment review;

Listen to part of [This American Life, Testosterone episode](#) (0:00-32:26)

Readings due 1/26:

- (1) [Eight things you need to know about sex, gender, brains, and behavior: a guide for academics, journalists, parents, gender diversity advocates, social justice warriors, tweeters, facebookers, and everyone else](#) by Cordelia Fine, Daphna Joel, and Gina Rippon

Wednesday 1/27

Assignments due 1/27 11:59 PM:

- **Assignment 1 Entry Survey & Orientation**

Thursday 1/28

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on history & general background; Discuss podcast and *Cerebrum* back-and-forth (Prepare to discuss: What assumptions are made about testosterone in the podcast? Are these assumptions you've heard or read elsewhere in the past? Do Cahill's arguments align with narratives you've heard before? What about Fine et al.'s objections?)

Readings due 1/28:

- (1) Finish [This American Life, Testosterone episode](#) (32:49-58:22)
- (2) Cahill, L., 2014, *Cerebrum*, "[Equal ≠ The Same: Sex Differences in the Human Brain](#)"
- (3) Fine, C., Joel, D., Jordan-Young, R., Kaiser, A., & Rippon, G., 2014, *Cerebrum*, "[Reaction to 'Equal ≠ The Same: Sex Differences in the Human Brain,'](#)"

Friday 1/29

Assignments due 1/29 11:59 PM:

- **Sign up for presentations**
- **Optional (5 points extra credit) Sign up for Week 2 Meeting** with Dr. Lewis one-on-one in office hours

Week 2 Feb 1

Tuesday 2/2

Office Hours 2:30-3:30 on BBCollaborate will be used for optional extra credit meetings, sign up in advance:

In Class 5:30-6:45 on BBCollaborate: History & general background; Discuss readings; Presentation groups meet at the end of class

Readings due 2/2:

- (1) Roy, D. (2018). [Introduction: Stolonc Strategies](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 3-32). Seattle: University of Washington Press.

- (2) Roy, D. (2018). [Chapter 1 Biophilosophies of Becoming](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 33-56). Seattle: University of Washington Press.

Thursday 2/4

Office Hours 2:30-3:30 on BBCollaborate will be used for optional extra credit meetings, sign up in advance

In Class 5:30-6:45 on BBCollaborate: Neuro Basics (types: molecular neuroscience, cellular neuroscience, systems neuroscience, behavioral neuroscience, cognitive neuroscience); Activity: Excerpt of *Neuroscience* rewrite; Presentation groups meet at the end of class

Reading due 2/4:

- (1) Roy, D. (2018). [Chapter 2 Microphysiologies of Desire](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 57-89). Seattle: University of Washington Press.
- (2) Roy, D. (2018). [Chapter 3 Bacterial Lives: Sex, Gender, and the Lust for Writing](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 90-127). Seattle: University of Washington Press.

Friday 2/5

Friday 2/5 2:30-3:40 on BBCollaborate: Optional extra credit meetings, sign up in advance

Assignments due 2/5 11:59 PM:

- Netter's Neuroscience Coloring Book Plate 1.1, 2.2, 2.3, 2.4

Week 3 Feb 8

Tuesday 2/9

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Neuro Basics (types: molecular neuroscience, cellular neuroscience, systems neuroscience, behavioral neuroscience, cognitive neuroscience); Discuss readings; Presentation groups meet at the end of class

Readings due 2/9:

- (1) Roy, D. (2018). [Chapter 4 Should Feminists Clone?: And If So, How?](#) In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 128-159). Seattle: University of Washington Press.
- (2) Roy, D. (2018). [Chapter 5 In Vitro Incubations](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 160-201). Seattle: University of Washington Press.
- (3) Roy, D. (2018). [Conclusion: Science in Our Backyards](#). In *Molecular Feminisms: Biology, Becomings, and Life in the Lab* (pp. 202-206). Seattle: University of Washington Press.

Thursday 2/11

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Screening of *The Female Brain* (1h38min) – Assignment 3 follows this screening (due 3/12)

Recommended Readings (commentary on the book this movie is based on) for 2/11:

- (1) https://www.nytimes.com/2006/09/10/books/review/Henig.t.html?_r=1
- (2) https://www.washingtonpost.com/wp-dyn/content/article/2006/08/18/AR2006081800429_pf.html
- (3) <https://www.nature.com/articles/443634a.pdf>

Friday 2/12

Assignments due 2/12 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 2.5, 2.6

Module 2a Neuro Narratives & NeuroGenderings

Week 4 Feb 15

Monday 2/15

Quiz 1 due Monday 2/15 11:59 PM

Tuesday 2/16

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture; Presentation groups meet at the end of class

Readings due 2/16:

- (1) Content Warning: This reading contains disturbing statements about race, ethnicity, gender, and sex. We are reading this chapter to contextualize the idea that “men and women have different brains.” You are **not** required to read this chapter in entirety. The goal of this reading assignment is to get an idea for what Darwin wrote in a book that has been influential. Be sure to read the paragraph on page 311 that begins “The chief distinction. . . “. Darwin, C., 1871, [The Descent of Man, pages 301-338](#)
- (2) Romanes, G., 1887, *Popular Science Monthly*, “[Mental Differences of Men and Women](#)”

Thursday 2/18

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture; Presentation groups meet at the end of class

Readings due 2/18:

- (1) Jordan-Young, R., Grossi, G., & Rippon, G., 2019, S&F Online, “[Introduction: Fifty Shades of Grey Matter](#)”
- (2) Bryant, K., Grossi, G., & Kaiser, A., 2019, S&F Online, “[Feminist Interventions on the Sex/Gender question in Neuroimaging Research](#)”

Friday 2/19

Assignments due 2/19 11:59 PM:

- Netter’s Neuroscience Coloring Book Plates 2.7, 2.8, 2.9
- Assignment 2 Identify earliest publication stating that men and women have different sized brains based on data presented

Week 5 Feb 22

Tuesday 2/23

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: **Two Assignment 4 Group Teach Presentations;** Share

Assignment 3 Findings with the class

Readings due 2/23:

- (1) Dekaban, A. S., & Sadowsky, D., 1978, *Annals of Neurology*, “Changes in brain weights during the span of human life: Relation of brain weights to body heights and body weights.”
- (2) Gur et al., 2002, *Cerebral Cortex*, “Sex Differences in Temporo-limbic and Frontal Brain Volumes of Healthy Adults”

Thursday 2/25

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: **Three Assignment 4 Group Teach Presentations**

Readings due 2/25:

- (1) Gur et al., 1999, *J Neurosci*, “[Sex Differences in Brain Gray and White Matter in Healthy Young Adults: Correlations with Cognitive Performance](#)”
- (2) Haier et al., 2005, *NeuroImage*, “The Neuroanatomy of General Intelligence: Sex Matters”

- (3) Witelson et al., 2006, *Brain*, "Intelligence and brain size in 100 postmortem brains: sex, lateralization and age factors"

Friday 2/26

Assignments due 2/26 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 8.1, 8.2, 8.3
- Select book for Book Review Project: [Sign-Up Sheet](#)

Week 6 March 1

Tuesday 3/2

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture and Discussion on reviews' narratives about sex differences in neuroscience

Readings due 3/2:

- (1) Cahill, L., 2006, *Nature Reviews Neuroscience*, "Why sex matters in neuroscience."
- (2) Ruigrok et al., 2014, *Neuroscience & Biobehavioral Reviews*, "A meta-analysis of sex differences in human brain structure."

Thursday 3/4

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture and Discussion on Sex as a Biological Variable

Readings due 3/4:

- (1) Shattuck-Heidorn, H., & Richardson, S. S., 2019, *S&F Online*, "[Sex/Gender and the Biosocial Turn](#)"
- (2) Explore NIH's [Sex as a Biological Variable website](#)

Friday 3/5

Assignments due 3/5 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 8.4, 8.5, 8.6
- [Sign up for \(optional\) meetings with Dr. Lewis next week](#)

Mid-Semester Catch Up

Week 7 March 8

Tuesday 3/9

Office Hours 2:30-3:30 on BBCollaborate: One-on-One meetings with Dr. Lewis, sign up in advance

In Class 5:30-6:45 on BBCollaborate: One-on-One meetings with Dr. Lewis, sign up in advance

Readings due 3/9:

- (1) Read Chunk 1 of Book Review Book (varies by book, see Book Review Project specifics)

Thursday 3/11

Office Hours 2:30-3:30 on BBCollaborate One-on-One meetings with Dr. Lewis, sign up in advance

In Class 5:30-6:45 on BBCollaborate: Book Review Small Group Discussions

Readings:

- (2) Read Chunk 2 of Book Review Book (varies by book, see Book Review Project specifics)

Friday 3/12

Assignments due 3/12 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 8.7, 8.8, 8.9
- Assignment 3 *The Female Brain* paper (begin during week 3, due week 7)

Assignments not turned in at this point will not be accepted after 3/14

Module 2b Neuro Narratives & NeuroGenderings

Week 8 March 15

Tuesday 3/16

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate:

Readings due 3/16:

- (1) Bentley, V., Kleinherenbrink, A., Rippon, G., Schellenberg, D., & Schmitz, S., 2019, *S&F Online*, "[Improving Practices for Investigating Spatial 'Stuff': Part I: Critical Gender Perspectives on Current Research Practices](#)"

Thursday 3/18

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate:

Readings due 3/18:

- (1) Bentley, V., Kleinherenbrink, A., Rippon, G., Schellenberg, D., & Schmitz, S., 2019, *S&F Online*, "[Improving Practices for Investigating Spatial 'Stuff': Part II: Considerations from Critical NeuroGenderings Perspectives](#)"
- (2) Kleinherenbrink, A., Bentley, V., Schmitz, S., 2019, *S&F Online*, "[Plasticity and Spatial Stuff under Western Neoliberal Order](#)"

Friday 3/19

Assignments due 3/19 at 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 8.10, 8.11

Week 9 March 22

Tuesday 3/23

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on the history of pathologization of gender and sexuality; Discussion of Gliske and Retraction Watch readings (Prepare to discuss: Do you agree with the objections stated in the Retraction Watch article? Are there other issues you notice in Gliske 2019?)

Readings:

- (1) Gliske, S. V., 2019, *eNeuro*, "A New Theory of Gender Dysphoria Incorporating the Distress, Social Behavioral, and Body Ownership Networks"
- (2) Marcus, A., 2020, *Retraction Watch*, "Journal retracts paper on gender dysphoria after 900 critics petition" (do not read the comments unless you are so inclined)

Thursday 3/25

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Three Assignment 4 Group Teach Presentations

Readings:

- (1) LeVay, S., 1991, *Science*, "A Difference in Hypothalamic Structure Between Heterosexual and Homosexual Men"
- (2) Zhou et al., 1995, *Nature*, "A sex difference in the human brain and its relation to transsexuality"
- (3) Taziaux et al., 2016, *J Clinical Endocrinology and Metabolism*, Kisspeptin Expression in the Human Infundibular Nucleus in Relation to Sex, Gender Identity, and Sexual Orientation.

Friday 3/26

Assignments due 3/26 at 11:59 PM:

- Netter's Neuroscience Coloring Book Plates 8.12, 8.13, 8.14
- Work on your Book Review & study for Quiz 2

Module 3 Contemporary Conversations

Week 10 March 29

Tuesday 3/30

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on ideas of sex and gender differences in people & sex differences in animals regarding social behaviors, anxiety, and depression; Discussion about readings

Readings:

- (1) Gungor, N. Z., Duchesne, A., & Bluhm R., 2019, *S&F Online*, "[A Conversation around the Integration of Sex and Gender When Modeling Aspects of Fear, Anxiety, and PTSD in Animals](#)"
- (2) Nelson, N.C. (2018). [Introduction: A furry, one-ounce human?](#) In *Model Behavior: animal experiments, complexity, and the genetics of psychiatric disorders* (pp. 1-20). Chicago: University of Chicago Press.

Thursday 4/1

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on ideas of sex and gender differences in people & sex differences in animals regarding social behaviors, anxiety, and depression; Discussion about readings

Readings:

- (1) Nelson, N.C. (2018). [Chapter 1: Containing Complexities in the Animal Behavior Genetics Laboratory](#). In *Model Behavior: animal experiments, complexity, and the genetics of psychiatric disorders* (pp. 21-50). Chicago: University of Chicago Press.
- (2) Nelson, N.C. (2018). [Chapter 2: Animal Behavior Genetics, the Past and the Future](#). In *Model Behavior: animal experiments, complexity, and the genetics of psychiatric disorders* (pp. 51-80). Chicago: University of Chicago Press.
- (3) Scholl et al., 2019, *Physiology & Behavior*, "Sex differences in anxiety-like behaviors in rats"

Friday 4/2

Assignments due 4/2 at 11:59 PM:

- [Netter's Neuroscience Coloring Book Plate 11.1, 11.2](#)
- [Work on your Book Review & study for and take Quiz 2](#)
- [Sign up for \(optional\) meetings with Dr. Lewis next week](#)

Week 11 April 5

Monday 4/5

Quiz 2 due 4/5 11:59 PM

Tuesday 4/6

Office Hours 2:30-3:30 on BBCollaborate One-on-One meetings with Dr. Lewis, sign up in advance

In Class 5:30-6:45 on BBCollaborate: One-on-One meetings with Dr. Lewis, sign up in advance

Readings: Read Chunk 3 of Book Review Book (varies by book, see Book Review Project specifics)

Thursday 4/8

Office Hours 2:30-3:30 on BBCollaborate One-on-One meetings with Dr. Lewis, sign up in advance

In Class 5:30-6:45 on BBCollaborate: Book Review Small Group Discussions

Readings: Read Chunk 4 of Book Review Book (finish book)

Friday 4/9

Assignments due 4/9 at 11:59 PM:

- [Netter's Neuroscience Coloring Book Plate 11.3, 11.4](#)
- [Work on your Book Review \(due in 3 weeks\)](#)

Week 12 April 12

Tuesday 4/13

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on the “extreme male brain” theory of autism and underdiagnosis of autism in girls and AFAB children; Discussion of reading and podcast

Readings due 4/13:

- (1) Gibson, M.F. & Douglas, P., 2018, *Catalyst: Feminism, Theory, Technoscience*, “Disturbing Behaviors: Ole Ivar Lovaas and the Queer History of Autism Science.”
- (2) Listen to [The Gendered Brain Debate podcast episode](#)

Thursday 4/15

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture on current state of neuro research on sex, gender, and autism; Discussion on the intersection of autistic¹ and queer identities

Readings due 4/15:

- (1) Warrier et al., 2020, *Nature Communications*, “Elevated rates of autism, other neurodevelopmental and psychiatric diagnoses, and autistic traits in transgender and gender-diverse individuals”
- (2) ASAN, NCTE, and LGBTQ Task Force Joint Statement on the Rights of Transgender and Gender Non-Conforming Autistic People

Friday 4/16

Assignments due 4/16 at 11:59 PM:

- Netter’s Neuroscience Coloring Book Plate 11.5-11.8
- Work on your Book Review (due in 2 weeks)

Week 13 April 19

Tuesday 4/20

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture; Discussion of replies and discourse resulting from Joel et al.

Readings due 4/20:

- (1) Joel et al., 2015, *PNAS*, “Sex beyond the genitalia: The human brain mosaic”

Readings recommended for 4/20:

- (1) Rosenblatt, J. D., 2016, *PNAS*, “Multivariate revisit to ‘sex beyond the genitalia’”
- (2) Chekroud, A. M., et al., 2016, *PNAS*, “Patterns in the human brain mosaic discriminate males from females”
- (3) Del Giudice, M., et al., 2016, *PNAS*, “Joel et al.’s method fails to detect large, consistent sex differences”
- (4) Joel, D., et al, 2016, *PNAS*, “Do brains of females and males belong to two distinct populations?”
- (5) Glezerman, M., 2016, *PNAS*, “Yes, there is a female and a male brain: Morphology versus functionality”
- (6) Joel, D., et al., 2016, *PNAS*, “Why differences between brains of females and brains of males do not ‘add up’ to create two types of brains”

Thursday 4/22

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Lecture and discussion

Readings due 4/22:

¹ Identity First Language (IFL) is used here based on discussions [advocating for IFL when discussing autism](#), but varying perspectives on IFL vs. Person First Language are acknowledged and respected

- (1) Alon, N., Meilijson, I., & Joel, D., 2020, *bioRxiv*, Testing the masculinization hypothesis in a sample of 23,935 human brains. *bioRxiv* 11/2020; doi: <https://doi.org/10.1101/2020.11.09.373258>

Friday 4/23

Assignments due 4/23 at 11:59 PM: None! Work on your Book Review

Week 14 April 26

Tuesday 4/27

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Vasopressin & Voles Lecture & Discussion

Readings due 4/27:

- (1) Willey, A. & Giordano, S., 2017, *Queer Feminist Science Studies*, "Why Do Voles Fall in Love? Sexual Dimorphism in Monogamy Gene Research."

Thursday 4/29

Office Hours 2:30-3:30 on BBCollaborate

In Class 5:30-6:45 on BBCollaborate: Last Day Wrap Up & Discussion of future directions

Readings due 4/29:

- (1) Roy, D., 2016, *Signs*, "Neuroscience and Feminist Theory: A New Directions Essay"

Friday 4/30

Assignments due 4/30 at 11:59 PM:

- (1) Assignment 5 Book Review
(2) Assignment 6 Exit Survey

Assignments cannot be accepted after this time