Gen&WS 530: Biology & Gender

Instructor: Dr. Lewis (she/they)

Office hours: Tuesdays 11:15-12:15 and by appointment

Contact: aklewis2@wisc.edu

Office: Sterling 3409

3 Credit Course: This advanced level, biological science course is an interdisciplinary course unlike most other GWS or other science courses. This class meets for two 75-minute class periods each week over the fall semester and carries the expectation that students will work on course learning activities (reading, writing, studying, etc.) for about 3 hours out of classroom for every class period. The syllabus includes more information about meeting times and expectations for student work.

Canvas Course URL: https://canvas.wisc.edu/courses/270453

Requisite: Junior standing or GWS 103

Class Time: 9:30 AM – 10:45 AM, Tuesdays and Thursdays

Location: Sterling 2301

Course Description

Explores biological notions of sex, gender, and sexuality, while examining how cisgender normative biases shape the production of scientific knowledge. Utilizes feminist approaches to methods in the health sciences and biological sciences. Applies transdisciplinary perspectives to consider work from a range of academic fields and topics in order to critique issues of epistemology, methodology, methods, interpretation, and writing. Examines both peer-reviewed and popular articles, websites, podcasts, and documentaries.

Course Learning Outcomes

At the completion of this course, students will be able to:

- identify inappropriate gendered language and cisgender normative biases in medical and scientific studies
- identify assumptions about sex, gender, and sexuality in medical and scientific studies
- analyze biological and medical texts, paying special attention to how research questions are framed and asked, methods, data and its interpretations, etc.
- propose corrections to medical and scientific studies and propose hypothetical studies
**REGULAR AND SUBSTANTIVE INTERACTION**

This course provides regular and substantive interaction by:

- Providing direct instruction twice weekly through lecture and facilitating group discussion at least once/week on the scheduled and assigned weekly content.
- Assessing or providing feedback on a student’s coursework throughout the semester based on the expectations of the learning activities described in the assignments section of this syllabus.

**REQUIRED TEXTBOOK, SOFTWARE & OTHER COURSE MATERIALS**

You need to purchase:


Available online through UW Library:


All other readings are available via link or as PDF downloads on our Canvas course website.

**ASSESSMENT**

Grades are based on a total of 1000 possible points from participation, assignments, presentations, quizzes, and the semester project. Use APA format for all citations for this course. Final grades are not curved. Graduate students who wish to take this course must see instructor for graduate-level course adaptations.

Final letter grades are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>930-1000 points</td>
</tr>
<tr>
<td>AB</td>
<td>880-929 points</td>
</tr>
<tr>
<td>B</td>
<td>830-879 points</td>
</tr>
<tr>
<td>BC</td>
<td>780-829 points</td>
</tr>
<tr>
<td>C</td>
<td>700-779 points</td>
</tr>
<tr>
<td>D</td>
<td>600-699 points</td>
</tr>
<tr>
<td>F</td>
<td>0-599 points</td>
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</table>

**LATE WORK**

- Notify Dr. Lewis immediately if you are sick, have a family emergency, or a personal issue and need to request an extension for an assignment, quiz, etc.
- Extensions are at the discretion of Dr. Lewis.
- Unexcused late work will lose 10% possible points each day that it is late for up to one week.
- After one week, you will receive 0 points for unexcused late work.
QUIZZES (100 points)

Quizzes will be open on Canvas for one week and are open-book and open-note. Quizzes will be taken outside of class in Canvas. Quizzes will be cumulative in that they will require applying concepts from throughout the semester. Quizzes are highlighted in blue throughout the syllabus.

- (25 pts) Quiz 1 is due Friday 10/1: Module 1 Quiz
- (25 pts) Quiz 2 is due Friday 10/22: Module 2 Quiz
- (25 pts) Quiz 3 is due Friday 11/12: Module 3 Quiz
- (25 pts) Quiz 4 is due Friday 12/10: Module 4 Quiz

SEMESTER PROJECT: FEMINIST MANUSCRIPT ANALYSIS AND REWRITE (450 points)

You will write a 6-7 page (double-spaced, not including reference list) paper that analyzes a peer-reviewed published scientific paper from your area of interest and you will rewrite the scientific paper. Your analysis 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 paper 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 6-7 page paper. Deadlines highlighted in green throughout the syllabus.

Part A: Selection of a peer-reviewed published scientific paper from your area of interest with 250 word justification is due Thursday 9/23 (40 points). Peer review will occur in class on Tuesday 9/28 and peer review will count as participation points. Bring printed copy of your Part A to class 9/28.

Part B: Outline of your paper is due Thursday 10/14 (60 points).

Part C: Draft of your paper is due Thursday 10/28 (75 points). Peer review will occur in class on Thursday 11/4 and peer review will count as participation points. Bring printed copy of your Part C to class 11/4.

Part D: Draft of Rewritten Manuscript is due Tuesday 11/16 (75 points). Peer review will occur in class on Thursday 11/18 and peer review will count as participation points. Bring printed copy of your Part D to class 11/18.

Project Presentations (7 minutes per person) during weeks 13-15 (50 points), sign up here. Peer review will occur in class on each of the presentation days and peer review will count as participation points.

Final Project (final paper & final rewritten manuscript) is due 11:59 PM Wednesday 12/15 (150 points).

Peer Review Process: For Parts A, C, and D In-Class Peer Review, you must both submit your assignment on Canvas before peer review and bring a copy to class in order to participate in peer review. If you do not participate in peer review, you are not eligible for the 25 points of participation that occur with these in-class peer review sessions.
HOMEWORK & OTHER ASSIGNMENTS (200 points)

Assignments are highlighted in yellow throughout the syllabus. Assignments are to be submitted in Canvas.

- (25 pts) Assignment 1 due Friday 9/10
  - Entry survey
- (50 pts) Assignment 2 due Thursday 9/16
  - Select an article from “Reading Room: News and Journal Articles about Studying Sex/Gender” on the NIH’s Sex & Gender website. Write a 500 word response to this article. Your response should briefly summarize the article and then address the language used to discuss sex and/or gender, biases you notice, assumptions about sex and gender that are present or implied, and provide relevant context to this article.

- (50 pts) Assignment 3 due Thursday 10/7
  - Select a video on YouTube that is about animal fertilization. Write a 500 word response to this video that addresses language used, content presented, and any biases noted. Identify the video’s creators, producers, writers, etc. and how this may influence the video’s perspective, if at all. Cite 3 peer-reviewed scientific journal articles that either do or not support the video and explain. Consider Martin 1991 in your response. Include at least 3 relevant screenshots of the video, along with figure legends and descriptions.

- (50 pts) Assignment 4 due Tuesday 10/19
  - Find a recent (July 2021 or more recent) news article, podcast, blog post, or other item that is about course-related current events. Write a 500 word response that briefly summarizes the item, then discuss the author(s) and their positionality and perspective. Cite 3 peer-reviewed scientific journal articles that either are cited in this item, or should have been cited, but weren’t. Explain what scientific data this item did or didn’t cite that’s in the articles you cite. Be sure to cite the original item and include a website link.

- (25 pts) Assignment 5 due Tuesday 12/14
  - Exit survey

PARTICIPATION (250 points)

Your active participation in class sessions is assessed as part of your grade for this class and makes up 25% of your final grade. During the first few classes, we will discuss what constitutes active participation. Participation is required for this course. Participation grades are based on attendance, participation in class, in-class activities, class discussions, discussion posts, peer review, etc. Points indicated on dates throughout.

If you have an excused absence due to illness, you may make up the participation points for that day by turning in a make-up assignment. You have one week from the time that you are well enough to return to class to make up the participation points. Different days carry different participation points based on the in-class activities. Contact Dr. Lewis for make up information for the specific day that you missed due to illness.
## Discussion participation rubric

<table>
<thead>
<tr>
<th>Points (of 5)</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality of contribution</strong></td>
<td>Always well-prepared for class; shows critical thought; poses questions; moves dialogue forward; stays on topic; engages with both instructor and classmates</td>
<td>Well-prepared for class most of the time; shows effort in critical thinking; poses questions; helps move dialogue forward; often stays on topic; shows effort to engage with both instructor and classmates</td>
<td>Sometimes well-prepared for class; makes attempts to engage in critical thought; makes attempts to move dialogue forward; sometimes goes off topic; shows some effort to engage with instructor and classmates</td>
<td>Rarely prepared for class; few attempts to engage in critical thought; seldom moves dialogue forward; often goes off topic; shows little effort to engage with instructor and classmates</td>
<td>Almost never prepared for class; does not attempt to engage in critical thinking; does not move dialogue forward; purposefully goes off topic; does not engage with instructor or classmates</td>
</tr>
<tr>
<td><strong>Frequency of contribution</strong></td>
<td>Always</td>
<td>Most of the time</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
</tr>
<tr>
<td><strong>Respect of ground rules</strong></td>
<td>Always</td>
<td>Most of the time</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
</tr>
</tbody>
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## EXTRA CREDIT OPPORTUNITIES

There are two major extra credit opportunities in this class.

(1) **Feminist Biology Symposium – 10 possible extra credit points**

Attend symposium (must attend 4 hours of talks, including at least one keynote) on October 8th. Submit information on what sessions were attended. Write a 3-page (double-spaced) paper that (1) summarizes and responds to one of the keynote talks and (2) addresses, expands on, and/or objects to a claim made in that keynote, citing at least 5 related peer-reviewed scholarly articles. This paper is due Friday 10/15.

(2) **Research Survey Participation – 20 possible extra credit points**

Shared on behalf of the research coordinator, Patrick Beymer:

You are invited to participate in a research study about students’ academic and career plans.

You are being asked to participate because you are enrolled in GWS 530. This study will include all students who agree to participate. You will be asked to complete multiple online surveys throughout the semester during the beginning of the semester, at the end of each class, and at the end of the semester. The online surveys are for research purposes only.

If you decide to participate in this research, you will complete multiple online questionnaires: once at the beginning of the semester, once at the end of the semester, and once after each class throughout the semester. You will be asked to answer questions about your attitudes about the fields of biology and gender and women’s studies, your thoughts about your academic and career plans, and your overall
experience as a student at UW Madison. It will take approximately 10 minutes to complete the beginning of semester and end of semester surveys and 2 minutes to complete each survey at the end of each class.

You will receive extra course credit (20 points out of 1000 course points, i.e., 2%) for completing the beginning of semester questionnaire, end of semester questionnaire, and 80% of the end of class surveys. Survey links available in Canvas.

Your instructor, Dr. Lewis, will not know who participates until after the course concludes. Extra credit points will be added to the gradebook by Dr. Lewis’ supervisor after the semester ends but before final grades are due. All of your data will be deidentified.

If you have any questions, you can reach out to Patrick Beymer at pbeymer@wisc.edu.

Your participation is completely voluntary. If you begin participation and change your mind, you may end your participation at any time without penalty. Links to the Qualtrics surveys are available in Canvas.

RULES, RIGHTS & RESPONSIBILITIES

- See: https://guide.wisc.edu/undergraduate/#rulesrightsandresponsibilitiestext

ACADEMIC CALENDAR & RELIGIOUS OBSERVANCES

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

ACADEMIC INTEGRITY

**Institutional syllabus 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.

[https://conduct.students.wisc.edu/syllabus-statement/](https://conduct.students.wisc.edu/syllabus-statement/)

**McBurney Disability Resource Center recommended syllabus 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. [https://mcburney.wisc.edu/instructor/]
DIVERSITY & INCLUSION

Institutional statement on diversity: 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. https://diversity.wisc.edu/

SEXUAL HARASSMENT & OTHER FORMS OF SEXUAL MISCONDUCT

Recommended syllabus statement: As an instructor, I am committed to supporting survivors of sexual misconduct, including sexual assault, sexual harassment, dating violence, domestic violence, stalking, and sexual exploitation. UW-Madison offers a variety of resources for students impacted by sexual misconduct.

If you wish to seek out free, confidential support, there are a number of services available on campus and in the community.

If you would like to report sexual misconduct to the campus, a number of reporting options are available. In addition, each department has staff members, known as Responsible Employees, who can assist you. If you are an undergraduate student, most of the academic and career advisors you work with are designated Responsible Employees. Please note that Responsible Employees are required to report specific disclosures that you share about sexual misconduct to UW-Madison’s Title IX Office.

The Department of Gender & Women’s Studies has the following Responsible Employees: the Department Chair, Dr. Judy Houck (jahouck@wisc.edu), the Graduate Coordinator, José Ramirez (jramirez27@wisc.edu), and the Undergraduate Advisor, Susan Nelson (susan.nelson@wisc.edu).

PRIVACY OF STUDENT RECORDS & THE USE OF AUDIO RECORDED LECTURERS STATEMENT

See more 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.
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.

Digital Course Evaluation (AEFIS)

If you plan to use campus’ digital course evaluation survey tool (AEFIS), see below for a sample statement to include in your syllabus.

UW-Madison uses a digital course evaluation survey tool called AEFIS. For this course, you will receive an official email two weeks prior to the end of the semester, notifying you that your course evaluation is available. In the email you will receive a link to log into the course evaluation with your NetID. Evaluations are anonymous. 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.

PARTICIPATION

See Assessment section for participation expectations.

CLASS CONTENT AND CONVERSATIONS

Content Warning

In this course, we will discuss a variety of difficult topics, including descriptions of discrimination, harassment, various forms of violence, and pathologization of sex, gender, and sexuality. While these topics can be uncomfortable to think about, we cover them because they are an important part of the social and historical context of science and medicine. Reading texts does not imply that we agree with the statements they make. By discussing science and medicine’s pathologization of sex, gender, and 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 quite difficult. The readings in this class are more than scientific articles—the topics in this class are of a highly personal nature. You (the individual student) each know best how to prepare for and engage with this material in a way that works for you. In our classroom, we will be committed to maintaining considerate and respectful discussions with each other, especially around these topics. It is critical that we all keep in mind that sex, gender, and sexuality are very personal topics. We all have different experiences and perspectives and speaking respectfully is crucial for these conversations.

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
Schedule

Class meets Tuesdays & Thursdays 9:30-10:45 AM, Sterling 2301
Office Hours Tuesdays 11:15 AM – 12:15 PM, Sterling 3409, and by appointment

Schedule is subject to change

Module 1 Basics of Biology & Gender

Week 1 (9/8)

Thursday 9/9 Course Introduction
5 participation points

Due at 4:59 PM Friday 9/10: Assignment 1

Week 2 (9/13)

Tuesday 9/14 Introduction to feminist science
5 participation points

Readings due:


Website exploration due:

- On the NIH’s Sex & Gender website, explore homepage and then “NIH Policy on Sex as a Biological Variable,” “Sex/Gender Influences in Health and Disease,” “Methods and Techniques for Integrating Sex into Research,” and “Reading Room: News and Journal Articles about Studying Sex/Gender.”

Thursday 9/16 Introduction to varied definitions of sex and gender
10 participation points

Readings due:

- Preface to the 2013 Edition (pp. ix-xii), Introduction (pp. 1-10), Chapter 2 (pp.22-29) in Roughgarden, J. (2013). Evolution’s Rainbow

Due at 11:59 PM Thursday 9/16: Assignment 2

Week 3 (9/20)

Tuesday 9/21 Gender bias in academic science
5 participation points

Readings due:


**Thursday 9/23** Intro to impacts of bias

5 participation points

Readings due:


**Due at 11:59 PM Thursday 9/23: Feminist Manuscript Project Part A**

**Module 2 Biology’s Perspectives on the Development of Sex**

**Week 4 (9/27)**

**Tuesday 9/28**

In class: Peer Review of Feminist Manuscript Project Part A (25 points of participation grade). You must bring a printed copy of your Part A to class and have submitted it online before class in order to participate in peer review.

**Thursday 9/30** Fertilization

10 participation points

In class activity: The Great Sperm Race

Readings due


**Due 11:59 PM Friday 10/1: Module 1 Quiz**

**Week 5 (10/4)**

**Tuesday 10/5** “Sex Determination” & Chromosomes

10 participation points

Download and bring to class:

Readings due:

**Thursday 10/7** “Sex Determination” & Chromosomes
5 participation points
Readings due:

**Due 11:59 PM Thursday 10/7: Assignment 3**

**Friday 10/8** Feminist Biology Symposium
For extra credit, attend symposium and write response paper, due Friday 10/15.

**Week 6 (10/11)**

**Tuesday 10/12**
5 participation points
Readings due:

**Thursday 10/14** Centering Intersex
5 participation points
In class: Watch and discuss *Intersexion: Finding a Place in a Two-Gender World* (53 minutes)
Readings due:
• Listen to or read transcript of Radiolab Gonads Podcast Episode *Dana* (30 minutes)

**Due at 11:59 PM Thursday 10/14: Feminist Manuscript Project Part B**

**Due 11:59 PM Friday 10/15: Extra Credit Paper- Feminist Biology Symposium**

**Module 3 Sex Variation and Differences**

**Week 7 (10/18)**

**Tuesday 10/19** Finish Viloria & Nieto
5 participation points
Readings due:
Due at 11:59 PM Tuesday 10/19: Assignment 4

Thursday 10/21 Sports
5 participation points

Readings due:

- Read and/or listen to ‘I Am A Woman': Track Star Caster Semenya Continues Her Fight to Compete as Female


Due 11:59 PM Friday 10/22: Module 2 Quiz

Week 8 (10/25)

Tuesday 10/26 Sports & Intersex Awareness Day
5 participation points

Readings due:

- Listen to or read transcript of Radiolab Gonads Podcast Episode Dutee (49 minutes)

Thursday 10/28 Sports
5 participation points

In Class: Watch 75 minutes of Changing the Game (2021)

No Reading due- Be working on Part C!

Due 11:59 PM Thursday 10/28: Feminist Manuscript Project Part C

Week 9 (11/1)

Tuesday 11/2 Sports
10 participation points

In Class: Finish (15 minutes) Changing the Game (2021)

Readings due:


Class will be divided into groups. Each group will also read one of the following and share with the class:


**Thursday 11/4**

In Class: Peer Review of Feminist Manuscript Project Part C (25 points of participation grade). You must bring a printed copy of your Part C to class and have submitted it online before class in order to participate in peer review.

No Reading due- Be working on Part D!

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**Module 4 Medical Gaze and Pathologization**

**Week 10 (11/8)**

**Tuesday 11/9 The Brain**

10 participation points

Readings due:


**Thursday 11/11 Pathologization of Gender**

10 participation points

Readings due:


_and read any 2 of these 6 readings:*


- Wu, K. J. (2016). *Between the (Gender) Lines: the Science of Transgender Identity*.

- Williams, S. (2018). *Are the Brains of Transgender People Different from Those of Cisgender People?*

**Due 11:59 PM Friday 11/12: Module 3 Quiz**

**Week 11 (11/15)**

**Tuesday 11/16** Pathologization of Sex and Gender

5 participation points

Readings due:

**Due at 11:59 PM Tuesday 11/16: Feminist Manuscript Project Part D**

**Thursday 11/18**

In Class: Peer Review of Feminist Manuscript Project Part D (25 points of participation grade). You must bring a printed copy of your Part D to class and have submitted it online before class in order to participate in peer review.

**Week 12 (11/22)**

**Tues 11/23** Pathologization of Sexuality

5 participation points

Readings for Tuesday:

**Thurs 11/25** – University Holiday

**Week 13 (11/29)**

**Tues 11/30**

**Feminist Manuscript Project presentations (75 minutes)**

In Class: Peer Review of Presentations (10 points of participation grade)

**Thurs 12/2**
Feminist Manuscript Project presentations (75 minutes)

In Class: Peer Review of Presentations (10 points of participation grade)

**Week 14 (12/6)**

**Tues 12/7**

Feminist Manuscript Project presentations (75 minutes)

In Class: Peer Review of Presentations (10 points of participation grade)

**Thurs 12/9**

Feminist Manuscript Project presentations (75 minutes)

In Class: Peer Review of Presentations (10 points of participation grade)

Due 11:59 PM Friday 12/10: Module 4 Quiz

**Week 15 (12/13)**

**Tues 12/14**

Feminist Manuscript Project presentations (30 minutes)

In Class: Peer Review of Presentations (10 points of participation grade); Wrap Up Discussion

Readings:


Due at 11:59 PM Tuesday 12/14: Assignment 5

Due at 11:59 PM Wednesday 12/15: Feminist Manuscript Final Project Due

Last day of classes Wed 12/15

Exam period Fri 12/17 - Thurs 12/23 (no final exam in this course)