PSYC 207 001 - Contemporary Topics in Biological and Cognitive Psychology

Instructor

Dr. Grace Truong
Office location: Kenny 3505
Office hours: Fridays, 11:00am-12:00pm
Email: gracet@psych.ubc.ca
Grace in ≤ 25 words: BC born and raised; all degrees from UBC; studies ownership + attention; likes hiking, food, board games, and oceans; dislikes bad drivers and heat waves.

Teaching Assistants (TAs)

Courtney Bryce
Office location: Kenny 3506
Office hours: Mondays, 4:00-5:00pm
Email: cab523@psych.ubc.ca
TA in ≤ 25 words: I'm a PhD student in the behavioural neuroscience area where I primarily research the effects of stress on decision-making. In my spare time I enjoy drinking red wine and watching bad reality television.

Tristan Hynes
Office location: TBD
Office hours: TBD
Email: thynes@psych.ubc.ca
TA in ≤ 25 words: I use rats to figure out how sex, personality, and neurobiology contribute to drug addiction. Likes: Politics.

Withdrawals: Withdrawal from this course without record of the course on your transcript must occur before 19 September 2017, or before 13 October 2017 for withdrawal with a standing of “W” on your transcript.

Course Description

The purpose of this course is to provide an overview of cognition and biological psychology through the lens of the law. After covering methods and basic concepts of neuroscience and cognitive psychology, we will explore the many ways research into cognitive functions has impacted legal proceedings. Topics include lie detection, eyewitness testimony, fitness to stand trial, and criminal responsibility. We will also look more broadly at moral reasoning, the implications of cognitive development over the lifespan, and the effect of presenting scientific information in the courtroom.
Learning Goals
By the end of this course you will be able to:
1. Identify various structures in the brain and describe their functions
2. Describe various methods to studying cognitive functioning and identify their strengths and weaknesses
3. Describe basic legal concepts and the different avenues through which scientific information interacts with the legal system
4. Discuss several ways in which research on cognitive functions has affected legal cases
5. Discuss the impacts of presenting neuroscientific evidence on jurors and judges

Course Materials

Required Textbooks
Forensic and Legal Psychology (Canadian Edition)
Authors: Mark Costanzo, Daniel Krauss, Regina Shuller, & Kaitlyn McLachlan
For this course, we are reading several chapters from this textbook. You are encouraged to rent the e-book version as it is the most affordable option. However, you are welcome to use a hard copy of the textbook if prefer. I do not recommend purchasing the American edition of this textbook as the material differs substantially in some chapters. The e-book can be rented from the publisher via this link: https://www.vitalsource.com/products/forensic-and-legal-psychology-canadian-edition-costanzo-mark-krauss-v9781464193941

Psychology: Openstax
Author: Rose Spielman
For this course, we are reading the research methods, biopsychology, and memory chapters of this open textbook. You may download the PDF of this textbook (https://openstax.org/details/psychology) for free or purchase a printed copy of the relevant textbook chapters from the bookstore.

Non-textbook readings
Certain topics will require material not found in the textbook. Readings for these topics will either be posted on Connect or be available through the UBC Library.

Course Website: www.connect.ubc.ca
Lecture slides, assignments, and grades will be available through UBC Connect. Lecture slides will be posted after class. You are also welcome to use the Connect course page to contact other students (e.g., arrange to share notes for missed classes, clarify a difficult topic, etc.) via the discussion board.
Learning Appraisals at a Glance

<table>
<thead>
<tr>
<th>Learning Appraisal Activity</th>
<th>Date</th>
<th>Percent of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-course Reflection</td>
<td>Sept 26</td>
<td>2%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>Oct 17 (in class)</td>
<td>25%</td>
</tr>
<tr>
<td>Final Project Paper (+ Rubric + Outline)</td>
<td>Outline – Oct 31</td>
<td>25%</td>
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<tr>
<td>Final Project Presentation (+ Reflection + Peer Evaluations)</td>
<td>Nov 16 – Nov 30</td>
<td>15%</td>
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<tr>
<td>Post-course Reflection</td>
<td>Nov 30</td>
<td>3%</td>
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<tr>
<td>Final Exam</td>
<td>TBD</td>
<td>30%</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100%</strong></td>
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<tr>
<td>Extra Credit</td>
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<td>3%</td>
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**Learning Appraisal Descriptions**

**Examinations**
The purpose of this component is to demonstrate mastery of course material as measured by comprehension and application of course concepts. The midterm and final exams will consist of multiple-choice and short answer questions. These will draw on both lectures and the readings and, for superior performance, you must have a clear understanding of both these sources of course content.

**Reflections (Pre-course & Post-course)**
The purpose of this component is to critically evaluate your own assumptions, knowledge, and opinions regarding neuroscience/cognition, law, and the interactions between those two fields. One (two-page) reflection will be due near the beginning of the course in order to create a baseline or reference point. A second (two-page) reflection will be due near the end of the course as a point of comparison. Reflections will be graded relatively holistically on the degree to which they show critical thinking.

**Final Project Paper**
The purpose of this component is to think critically about one aspect of the intersection between neuroscience/cognition and the law, and generate new ideas that can contribute to the public’s understanding of this aspect and/or improve the lives of others through changes to the way cognition/neuroscience and the legal system interact. There are 2 options for the final project:

**Option #1: Propose a study**
For this option, you will review the existing research on a particular topic, identify what is currently unknown or inconclusive about that topic, generate an appropriate research question, and propose a
study that will answer your research question. As part of your proposal, you will describe the study rationale, variables, and methods (participants, stimuli, procedures) you have chosen and justify your choices. You will also describe your research hypothesis, explain why it is important to answer this particular research question, and discuss the strengths/limitations of the study.

Example study ideas: Do people from all cultural backgrounds evaluate neuroscientific information the same way? How is moral reasoning affected by taking Drug X? How does cognitive load affect eye witness testimony?

Option #2: Propose a policy recommendation
For this option, you will review the existing research on a particular topic, identify previous and current policies/laws (if any) relating to that topic, and generate a policy recommendation based on the evidence available so far. As part of your proposal, you will describe why the policy is important to implement, who is affected by your policy, which situations are covered by the policy, the feasibility of enacting the policy (i.e., the resources required, the popularity of the idea, etc.), the timeline of policy implementation (i.e., immediately, over a number of years), and the strengths/limitations of the policy. Example proposal ideas: It should be illegal for minors to possess marijuana because of its impact on cognitive development; all jurors/judges should undergo a mandatory tutorial on evaluating neuroscientific studies; Lawyers should be allowed to scan the brains of potential jurors...

The graded components of the final project paper include (grade value in parentheses):
(1) Rubric creation (in class, 2%) – propose grading guidelines for the option you plan on choosing
(2) Project outline (due Oct 31, 3%) – describe your topic choice and list 2 academic sources
(3) Written submission (due Nov 23, 20%) – 6 pages maximum, 12-point font, double-spaced

You are permitted to choose a topic that will not be covered in class provided that your TA approves it when you submit your project outline. Final project papers must be submitted to TurnItIn.

Final Project Presentation
The purpose of this component is to practice communicating scientific and legal ideas and concepts to an audience of one’s peers. The format of this component will be multiple class days devoted to conference-style poster presentations of the final projects. This is an opportunity to learn about other students’ projects and evaluate them, have your own project peer-evaluated, and reflect on the feedback you received. Presentation dates will be determined by the instructor and cannot be changed without a verifiable reason (e.g., doctor’s note) and written permission from the instructor.

The graded components of the final project paper include:
(1) Poster presentation (in class, 10%) – present your poster to your fellow classmates and TA
(2) Peer review (in class, 2%) – evaluate two of your peers’ projects during the poster presentations
(3) Post-poster reflection (due Dec 5, 3%) – review peer feedback and reflect on your presentation

Extra Credit
You have the opportunity to earn up to three (3) extra percentage points on your overall final grade by participating in studies regularly conducted by the Psychology Department and coordinated through the human subject pool (HSP). This provides the valuable opportunity to observe the research process directly and to contribute to the ongoing research activities at UBC. The extra grades are obtained by signing up for the Introductory Psychology Subject Pool through their website: https://hsp.psych.ubc.ca/. Please note that any inquiries about credits should be directed to HSP or the experimenters that you worked with, *not* the instructor. One percentage point is assigned to your final grade for each hour of participation and partial credits will be rounded down (i.e., 1.5 hours = 1%
extra credit). Credits can be recorded and tracked via the subject credit website. These credits are added to your grade at the end of the course. If you do not correctly assign your credits to this course, you will NOT receive credit so please make sure you have done this correctly.

As an alternative to participating in studies, you may choose to complete library writing projects, in which you read and summarize a research article; each article summary counts as one hour of research participation. For each summary, you must select a research article (not a letter to the editor, commentary, or review paper) published between 2000 and the present in the journal *Psychological Science*. Each summary should be about 500 words and should describe the research question, methods, and results of the study presented in the article. Complete instructions on how to complete the library-writing projects can be found on p.4 (“The Library Option”) of the guide at http://psych.ubc.ca/internal/human-subject-pool/ in the document entitled “Subject Pool Information for Participants.” You must adhere to the complete instructions detailed in the guide to receive your credits.

*The HSP system closes on the last day of classes (Dec 1st). This will be your final day to earn research participation credits, and the final day to assign credits to this course.*

**Course Policies**

*Attendance*
I expect you to attend every lecture. While we will be posting lecture slides after class, these are NOT a substitute for lecture, and exams will contain a significant amount of content only provided in lecture. I will number our lecture slides so that you can take notes corresponding to each slide during lecture. If you must miss a class, please contact your fellow classmates to obtain notes and/or information on what you missed. You can use the discussion forums on Connect to arrange sharing of notes and content from missed class with other students.

*In the Classroom*
Your behaviour in the classroom reflects on you as a person and student. Treat your instructors, fellow classmates, and anyone else that might be a part of our class with respect. This means being courteous and respectful when asking questions or making comments during class, and not monopolizing a discussion or question period.

*Laptop Use*
I understand that many students use laptops or other electronic devices as learning tools. However, some students use their laptops during class for activities that are not related to this course. This can easily distract students sitting nearby. For this reason, I ask that anyone using a laptop or similar device for activities unrelated to the course sit at the back of the classroom.

*During Exams*
Every exam will require you to fill out a Scantron sheet in response to multiple choice questions, and therefore it is your responsibility to bring a pencil and eraser to every exam. You will not be allowed to write the exam if you are more than 30 minutes late, or if another student has already submitted his/her exam, if that occurs first. You may not leave the room (e.g., to use the bathroom) unless you have provided us with medical documentation 24 hours prior to the exam indicating a medical condition that might require you to leave the room. You will have 80 minutes to write each exam, and
when time is called you must immediately stop writing, remain quiet and follow the instructions for submitting your exam. This means you will not be given extra time to put your name and/or student ID on your Scantron form or exam, change an answer, etc. Failure to comply with any of these instructions will result in a '0' on your exam.

**Missing Exams**
If you are aware of scheduled UBC-sanctioned sport travel or a religious obligation that conflicts with the date of an exam, you MUST contact the instructor within the first two weeks of classes so that alternate arrangements can be made. If you miss an exam for a medical reason, you must contact the instructor before the exam. You must provide medical documentation of the illness as soon as possible following the exam, and it is your responsibility to schedule a makeup exam within two (2) weeks of the original exam date (unless your documentation warrants a longer period). If you miss an exam for any other reason (e.g., work commitments, sleeping in, forgetting there was an exam, etc.), you will receive a "0" on the exam.

**Reviewing Exams**
There will be one 2-hour exam review period scheduled after the exam marks are released. Your TA will run this review session, and will be available to answer any questions or concerns regarding your exams. Should you be unable to attend this review session, you must contact your TA to make alternative arrangements to see your exam. You must arrange to see your exam within 2 weeks of the grades being released. Following this two week period, your exam will not be available.

**Grades**
In order to reduce grade inflation and maintain equity across multiple course sections, all psychology courses are required to comply with departmental norms regarding grade distributions. According to departmental norms, the average grade in a 100- and 200-level Psychology courses are 67 for an exceptionally strong class, 65 for an average class, and 63 for a weak class, with a standard deviation of 14. Scaling may be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor or department. Grades are not official until they appear on a student’s academic record. You will receive both a percent and a letter grade for this course.

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<thead>
<tr>
<th>Letter Grade</th>
<th>Percent</th>
<th>Letter Grade</th>
<th>Percent</th>
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<tr>
<td>A+</td>
<td>90 - 100</td>
<td>C+</td>
<td>64-67</td>
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<tr>
<td>A</td>
<td>85 - 89</td>
<td>C</td>
<td>60-63</td>
</tr>
<tr>
<td>A-</td>
<td>80 - 84</td>
<td>C-</td>
<td>55-59</td>
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<td>B+</td>
<td>76 - 79</td>
<td>D</td>
<td>50-54</td>
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<tr>
<td>B</td>
<td>72 - 75</td>
<td>F</td>
<td>0-49</td>
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<tr>
<td>B-</td>
<td>68 - 71</td>
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**Academic Misconduct**
Cheating on exams will result in a score of 0 for that exam. Lab assignments must be completed independently. Sharing your answers to lab assignment questions or using another student’s work is considered cheating and will result in a score of 0 for that assignment. Using another student’s clicker to answer questions for him or her is also considered cheating. If you are caught with more than one clicker in class, both clickers will be confiscated and you will both receive a 0 for course participation. All forms of cheating will be reported to the university for appropriate action.

**Psychology Department’s Position on Academic Misconduct**
Cheating, plagiarism, and other forms of academic misconduct are serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. First, the Department uses
software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students' responses. In addition, the Department subscribes to Turnitin, a service designed to detect and deter plagiarism. All materials (e.g., papers, lab assignments) that students submit for grading may be scanned and compared to over five billion pages of content located on the Internet or in Turnitin's own proprietary databases. The results of these comparisons are compiled into customized "Originality Reports" containing several, sensitive measures of plagiarism; instructors receive copies of these reports for students in their class.

In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student’s transcript.

If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult me. For details on pertinent University policies and procedures, please see Chapter 5 (“Policies and Regulations”) in the UBC Calendar (http://students.ubc.ca/calendar).

Access and Diversity
UBC is committed to equal opportunity in education for all students including those with documented physical disabilities or learning disabilities. If you have a disability that affects your learning or performance on tests or exams please visit http://students.ubc.ca/about/access and take the necessary steps to ensure your success at UBC.

Helpful Resources

The Kaleidoscope: the-kaleidoscope.com
A confidential peer-run mental health support group that takes place on campus at least once a week. You may attend the group if you are experiencing any kind of mental health related challenges, or if you’re just feeling stressed about school in general. Registration is not required to attend the group. See the website for meeting times and locations. Food and drink are provided.

Counselling Services: students.ubc.ca/livewell/services/counselling-services
Phone number: 604-822-3811
Counselling services offers a variety of resources to help you maintain your mental health while in school. You may see a counsellor on an individual basis, attend group counselling, or to document an illness if you should require academic concession.

SpeakEasy: ams.ubc.ca/services/speakeasy/
Phone number: 604-822-9246
A student run service that offers confidential support for students experiencing crisis. Also a good resource for additional information and referrals within the UBC community.

SHARE: www.vivreshare.org
Self Harm Anonymous Recovery and Education is a program designed to promote self care and educate about self harm. SHARE support groups meet biweekly; times and locations can be found on their website.
UBC Wellness Centre: students.ubc.ca/livewell/services/wellness-centre
Phone number: 604-822-8450
Speak with other students about tips for managing stress, keeping healthy sleep and eating patterns, concerns about safe sex and more.

Access and Diversity: students.ubc.ca/about/access
Phone number: 604-822-5844
Access and Diversity provides accommodations for students living with physical or mental disabilities.

Student Health Services: students.ubc.ca/livewell/services/student-health-service
Phone number: 604-822-7011
Student health provides students with a variety of healthcare related services to help you maintain your health while studying. Access to doctors and registered nurses.

Mood Disorders Clinic UBC: ubc-mooddisorders.vch.ca/
A psychiatric program designed specifically to treat individuals living with depression or bipolar disorder.

Live Well, Learn Well: students.ubc.ca/livewelllearnwell
The Live Well, Learn Well initiative is a resource hub that provides students with information to help improve physical and mental wellbeing.

Mental Health Awareness Club: ubcmhac.sites.olt.ubc.ca/
A club that offers opportunities to speak about mental health with others and strives to promote mental health awareness throughout the UBC community.

Pacific Spirit Addiction Services: 3rd Floor, 2110 West 43rd Ave Vancouver B.C. V6M 2E1
Phone number: 604-267-3970
A free and confidential service for youth and young adults up to the age of 24. Services include counselling, access to an addiction physician - including usage of a methadone maintenance program - and a drug education series.

AMS Food Bank: ams.ubc.ca/services/food-bank/
If you are in a financial emergency AMS food bank can provide you with a food hamper. You are able to use the service up to 6 times each term.

UBC Psychology Clinic: clinic.psych.ubc.ca
Professional psychological services provided to the community, including assessment & treatment for children, adults & families by clinical psychology trainees.

BC Crisis Center: crisiscentre.bc.ca
Phone number: 604-872-3311
Non-profit, volunteer-driven organization that provides emotional support to youth, adults, and seniors in crisis in BC. Crisis line available 24/7.

Distress Line:
Phone number: 1-800-Suicide (784-2433)
If you are in distress or are worried about someone in distress who may hurt themselves, call 1-800-SUICIDE 24 hours a day to connect to a BC crisis line, without a wait or busy signal.
# Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>In-Class Topic</th>
<th>Reading &amp; Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Tues Sept 5</td>
<td><em>No class - Imagine Day</em></td>
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<tr>
<td></td>
<td>Thurs Sept 7</td>
<td>Introduction &amp; Welcome</td>
<td>Syllabus</td>
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<tr>
<td>2</td>
<td>Tues Sept 12</td>
<td>General Research Methods</td>
<td>OpenStax: Ch 2</td>
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<tr>
<td></td>
<td>Thurs Sept 14</td>
<td>Neuroscience Research Methods</td>
<td>OpenStax: Ch 2</td>
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<tr>
<td>3</td>
<td>Tues Sept 19</td>
<td>Guest lecture</td>
<td>Dr. Stephen Hart</td>
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<tr>
<td></td>
<td>Thurs Sept 21</td>
<td>Brain Systems</td>
<td>OpenStax: Ch 3</td>
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<tr>
<td>4</td>
<td>Tues Sept 26</td>
<td>Intro to Psychology and the Law</td>
<td>Pre-course Reflection due</td>
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<tr>
<td></td>
<td>Thurs Sept 28</td>
<td>P&amp;L continued (+ Rubric Design)</td>
<td>Costanzo: Ch 1</td>
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<tr>
<td>5</td>
<td>Tues Oct 3</td>
<td>Lie Detection</td>
<td>Costanzo: Ch. 3</td>
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<td></td>
<td>Thurs Oct 5</td>
<td>Memory</td>
<td>OpenStax: Ch 8</td>
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<td>6</td>
<td>Tues Oct 10</td>
<td>Memory</td>
<td>Costanzo: Ch. 5</td>
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<td>Thurs Oct 12</td>
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<td>Costanzo: Ch. 5</td>
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<td>7</td>
<td>Tues Oct 17</td>
<td>Midterm Exam</td>
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<td>Thurs Oct 19</td>
<td>Memory</td>
<td>Costanzo: Ch. 5</td>
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<td>Tues Oct 24</td>
<td>Fitness to Stand Trial/NCRMD</td>
<td>Costanzo: Ch. 9</td>
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<td>Thurs Oct 26</td>
<td>Criminal Intent/Moral Reasoning</td>
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<td>9</td>
<td>Tues Oct 31</td>
<td>Guest Lecture</td>
<td>Final Project Outline due</td>
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<td></td>
<td>Thurs Nov 2</td>
<td>Developing Brains</td>
<td>Dr. Wolfgang Linden</td>
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<td>10</td>
<td>Tues Nov 7</td>
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<td>11</td>
<td>Tues Nov 14</td>
<td>Perception of Neuroscientific Evidence</td>
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<td>Thurs Nov 16</td>
<td>Final Project Presentations</td>
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<td>12</td>
<td>Tues Nov 21</td>
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<td>13</td>
<td>Tues Nov 28</td>
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<td></td>
<td>Final Project Presentations</td>
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<td>Thurs Nov 30</td>
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<td>Post-course Reflection due</td>
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<td></td>
<td>Final Project Presentation Reflection due Dec 5 via TurnItIn</td>
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**Important**

The Final Exam will take place during the final exam period, which runs from Tuesday, December 5 to Wednesday, December 20. Saturdays are included in the final exam period. Your attendance at the final exam is mandatory.

You should not make travel plans until you learn the date of your final exam. You cannot take the final at a different date/time unless you have a verifiable medical reason.