Introduction to Biological and Cognitive Psychology

Psychology is the scientific study of the mind and behaviour. It is a broad discipline, and we will be focusing on the biological and cognitive aspects of psychology (see a Psyc102 course for social and clinical psychology).

We will start with an introduction to the methods and tools we can use to measure the mind and behaviour, before seeing how these methods and tools have been used to answer some of the key questions in psychology, including how information is coded in the brain, how we see the world, how we can learn and remember, how we can use language to communicate, and how we can think and reason in the world.

Importantly modern psychology is a science, and as such we will learn about the scientific method, and how to evaluate and think critically about evidence we are presented with. This will be an invaluable tool for both your academic and non-academic life, especially in the current climate of information overload, and the era of ‘fake news’.

Course objectives

1. Define psychology, and some major perspectives within it.
2. Describe the scientific method, and how this has been applied to understand key areas of biological and cognitive psychology.
3. Distinguish modern methods in psychology, and describe what can be measured with each.
4. Recognise, recall, and explain the organisation of the human nervous system, from single neurons to brain networks.
5. Recognise, recall, and explain various concepts and theories from several subfields in biological and cognitive psychology.
6. Think critically about psychological theories and claims.
7. Apply psychological theories to your life.
8. Communicate your knowledge in several forms, including exams, written essays, and open-book tests.
9. Be able to apply psychological research to optimise and streamline your approach to learning in an academic context.

Course Leaders

We are here to assist you in achieving your course goals. Teaching is not a one-size-fits-all product, so it is likely that there will be some topics and/or tasks that you might find difficult. If so, please reach out! We are here to help.

Instructor
Dr. Eve Limbrick-Oldfield
eve@psych.ubc.ca
Rm 4035, Audain Arts Centre
Drop-in office hour: Wednesdays 1-2pm
Available outside of office hour by appointment.

Teaching assistant
Lisa Zhang
lisazhang@psych.ubc.ca
Rm 2011, Douglas T. Kenny Building,
Drop-in office hour: Thursdays 4-5pm

Course website

The website for the course can be found at www.canvas.ubc.ca. Here you will find all materials related to the course, including your grades. Please check the website frequently and make sure that you are receiving notifications for announcements etc.
Lecture slides
These will be posted to the site after each lecture. Each slide will be numbered so you can easily take notes during the lectures.

Piazza
We will be conducting class related discussions on Piazza, a tool available on the website. This online message board provides a place for you to ask course content related questions, which can be answered by either the course leaders, or your fellow students. We encourage you to ask questions via Piazza instead of email – you can even do so anonymously.

You may discuss the class assignments here, and help each other with concepts, but please DO NOT provide specific answers to any assignments. Providing answers to these activities is considered academic misconduct.

Before you can use Piazza on the course site, please visit https://piazza.com/ubc.ca/winterterm2018/psyc10190 to sign up. Once you have created your account you will be able to login to Piazza through the Canvas website.

Launchpad
This is the online companion to the textbook, and is integrated with canvas. This is the first year that this integration has been implemented – so there may be teething problems! Once you have purchased your textbook (see below), you will be able to access Launchpad from within Canvas.

Required materials

Textbook and Launchpad
PLEASE NOTE: This course is using a textbook with online materials (Launchpad) that are accessed through the course’s Canvas website. This means that you must purchase the textbook through one of two channels in order to be able to access this content. As a department we have negotiated a reduced price for this textbook, and so using either of these methods will also ensure you receive this reduced price. As you are required to access the online materials, please do not purchase a second-hand copy of this textbook.

There are several options available when deciding which textbook package to purchase. The first concerns whether you would like a paper or online copy of the textbook:

1) You can purchase a hard copy of the textbook which comes with Launchpad access. If you choose this option, please purchase the textbook at the UBC bookstore and retain your receipt (this contains a code required to access Launchpad).

2) You can purchase an online only copy of the textbook, which also comes with Launchpad access. You may purchase this either in the bookstore (again, save your receipt) or online through the course Canvas website.

The second option is deciding whether you are likely to take (or are taking) Psyc102:

1) If you are only taking Psyc101 you can choose to purchase a custom copy of the textbook which includes only those chapters covered in this course, and comes with 6 months online access to Launchpad.

2) If you are also planning on taking Psyc102, you have the option of buying the full textbook which comes with 24 months Launchpad access. This will save you money in the long run. Before choosing this option, I would advise checking that the required materials for the Psyc102 section you are taking.

All of this means you will need to purchase one of the following:


The first assignments require that you have access to Launchpad. Don’t worry if you are unsure which option to buy, as there is a two-week trial of Launchpad.
available. To access this trial, visit the courses Canvas website and activate this trial.

If you have technical issues with Launchpad, visit their support website for FAQs and contact: https://macmillan.force.com/macmillanlearning/s/launchpad. We are unable to help with technical issues you may be having. If a technical problem is preventing you from completing an assignment on time, you should email your instructor, including your support ticket number.

iClicker+

You will be required to communicate and engage in classes with an iClicker+. If you do not already have one, you will be required to purchase a physical iClicker+ from the bookstore. Once you have purchased your iClicker+, you must register it on the Canvas course website. See http://learningcommons.ubc.ca/tech-support/tech-help/clickers/ for purchasing options and support in setting up your clicker with this course.

If you are struggling to afford the above course materials, please let me know. I do not have spare paper copies of the textbook (the Koerner Library does have one copy), but I have online access codes and physical iClickers I can lend out to those experiencing financial hardship.

Turnitin

You will be required to submit written coursework via Turnitin. This is a free website that acts as a plagiarism identification service. If you don’t already have an account, you are required to make one by visiting www.turnitin.com. Once you have account, the class ID is 18982699, and the access code is psyc101901.

Checklist

Please ensure you have done the following:

☐ Created a Piazza account
☐ Obtained access to the textbook and launchpad and registered your purchase on the Canvas website.
☐ Purchased and registered an iClicker
☐ Created a Turnitin account and added this class to your account.

Class format

Each class will cover a discrete topic. Before each class you will be required to read the corresponding section of the textbook and complete online exercises in Launchpad that will assist your learning (see learning appraisal section). The classes will then consist of a combination of the following:

- Short lectures covering the more important and/or challenging concepts from the textbook.
- Short lectures going beyond the textbook looking at particularly interesting, important, or current topics that are not covered in the textbook, or expanding upon the textbook material.
- iClicker questions to either check understanding or stimulate discussion.
- Individual or group activities that allow for a deeper understanding of a concept or theory.

Learning appraisals

We will be assessing your learning in a variety of ways throughout the term. In the first lecture we will discuss why these methods have been chosen, and how they assist in learning. Assignment due dates can be found on the final page of this document.

Contributions to the final course grade are as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>% of grade</th>
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<tbody>
<tr>
<td>1. Final exam</td>
<td>38</td>
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<tr>
<td>2. Midterm exam</td>
<td>24</td>
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<tr>
<td>3. Mini-essays (2)</td>
<td>10</td>
</tr>
<tr>
<td>4. Data interpretation quizzes (2)</td>
<td>10</td>
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<tr>
<td>5. Learning curve activities</td>
<td>9</td>
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<tr>
<td>6. iClicker questions</td>
<td>5.5</td>
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<tr>
<td>7. Syllabus quiz</td>
<td>1.5</td>
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<tr>
<td>8. Research experience component</td>
<td>2</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
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<tr>
<td>9. Bonus research experience</td>
<td>3</td>
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</table>

1. Final exam

(38% of course grade)

A two-stage exam consisting of multiple choice and fill-in-the-blank questions. The exam will be cumulative, with approximately 20% of questions on material covered before the midterm. To perform well you must have a clear understanding of both the textbook and class material.

In a two-stage exam you first complete the exam individually (90% of your mark), then complete the
exam in small groups of 4-6 people (10%) of your mark. If your individual score is higher than the group score (this rarely happens) then your group score will not contribute to your grade.

2. Midterm exam
(24% of course grade)
A two-stage exam consisting of multiple choice and fill-in-the-blank questions. To perform well you must have a clear understanding of both the textbook and class material covered up to the midterm.

3. Mini-essays
(10% of course grade)
During the term, you will be required to complete two mini-essays. The first will ask you to describe and explain a case of pseudoscience in the media. The second will ask you to pick a psychological theory, describe it, and explain how it is relevant to your everyday life. Please see the assignment description document for more information.

4. Data interpretation quizzes
(10% of course grade)
You will be required to complete two data interpretation quizzes throughout the term. These quizzes will be posted on Canvas and you will complete them outside of class.
These quizzes give you an opportunity to practice understanding and interpreting data, building on your ability to critically evaluate evidence. They will require you to put into practice knowledge you have gained in class.

5. Learning curve activities
(9% of course grade)
Each week (with a few exceptions, see the course schedule at the end of this document) you will be assigned Learning Curve exercises on Launchpad. The deadline for these exercises is 11.59pm on the Tuesday before class. These are online quizzes that cover the textbook material and reward you for completing the assigned readings. You are required to answer questions until you reach the required score. For each Learning Curve deadline met, you will receive 1% towards your course grade. If you miss the due date, you will receive a zero for that assignment.
The difficulty of Learning Curve questions adapts to your performance. If you answer most questions correctly, you will receive more difficult questions which allow you to reach the target score more quickly. If you get questions wrong, the software will revert to easier questions, but it will take you longer to reach the target.

6. iClicker questions
(5.5% of course grade)
Your participation in class will be evaluated by your response to iClicker questions. Each class (excepting the first class) will contain clicker questions. For each class, respond to 80% of the questions to obtain 0.5% towards your grade. If you do not respond to enough questions, you will receive zero for that class.

Please be aware that responding on behalf of another student constitutes academic misconduct.

7. Syllabus quiz
(1.5% of course grade)
This short quiz will be available on Canvas and should be completed by you outside of class. It is designed to ensure you have familiarised yourself with this document.

8. Research experience component
(2% of course grade)
Psychology is an active and exciting scientific discipline. Many of the studies that you will learn about in this course were carried out at universities just like ours! As part of this course, you will be asked to complete a research experience component (REC) as way of introducing you, in a more hands on and interactive way, to cutting edge research in psychology. This REC will be worth 2% of your grade in the class and you are free to choose one of two options:

1. Participate in the Psychology Department Human Subjects Pool.
Most students will choose to earn their research experience component by spending two hours participating in psychology studies (worth 1% point for each hour) through the Department of Psychology’s Human Subject Pool (HSP) system. You can locate, create an account, and sign up for studies by going to https://ubc-psych.sona-systems.com/. Please register in the system by the end of the first month of classes to have the opportunity to earn your first ½ hour credit with a brief online survey that will increase your eligibility for more studies.
Once registered in the system, you will be able to browse through and select which studies you wish to participate in, sign up for an available timeslot, and confirm your accumulated credits afterward. At the end of the last day of class for the term, the subject pool is closed. At that point, you will no longer be able to receive credits. We strongly urge you to participate in and confirm your credits long before the last week of class. Further instruction on how to use the HSP online system can be found at: http://psych.ubc.ca/internal/human-subject-pool/ in the document entitled “Subject Pool Information for Participants.”


As an alternative to participation in psychology subject pool experiments, you may complete a library-writing project. Such projects consist of reading and summarizing 1) the research question, 2) the methods and 3) the results (in written form) of a research article from the peer reviewed journal Psychological Science. You will receive one (1) research participation credit for each article summary that meets the following requirements.

- The article must have been published in the journal titled “Psychological Science”
- The article must have a publication date from the year 2000 to present (i.e. papers from 2001 are acceptable; those from 1999 or earlier are not)
- The article must be a research article; it cannot be a review article, a news item, a notice, or a letter to the editor, for example
- The summary should be approximately 500 words in length
- You must include your name, student number, course, section, instructor and email address on each summary
- You must log on to the Human Subject Pool system (https://ubc-psych.sona-systems.com/) and create an account before submitting your article summaries. Your credit is assigned using the online system.

For each course, you may obtain the same number of extra credits via the library option as specified in the course syllabus (i.e. the same number of credits available for students who participate in research).

Summaries must be submitted no later than 10 days before the end of classes. You are to submit your article and your summary to Turnitin.com. If you don’t have a Turnitin account already (from a previous course), you will need to create a user account in Turnitin. For the library assignment the class ID is 18960557, class name is “HSP 2018-19: HSP (2018-2019) Fall Term” and password is “Research”. See www.turnitin.com, and click on the “Training” link at the top of the page for detailed instructions on how to submit papers to Turnitin.

Any student who is suspected of plagiarism will, at a minimum, not be granted credit, and their course instructor will be notified. Further action may be taken at a departmental or university level.

9. Bonus research experience (optional)

You may earn up to 3% extra credit that will be added to your final grade. These extra credits can be earned by doing up to three additional hours of study participation in the HSP (or summarizing another three additional journal articles for the library option) as described above as the research experience component of the course.

Any HSP credits you earn will first be applied to the course requirement of 2%. Any additional credits will be applied as extra credit. For extra credit, one percentage point is assigned to your final grade for each hour of participation. Partial credits will be rounded down (i.e., 1.5 hours extra credit hours = 1% extra credit). Credits can be recorded and tracked via the HSP website.

Course grading

Your final grade consists of the items described above: the performance for each of the items will be put into a calculator that outputs your final course percentage.

Grade Distribution:

- A 80-100%
- B 68-79%
- C 55-67%
- D 50-54%
- F <50%

Scaling Policy: The Department of Psychology reserves the right to scale grades in order to maintain fairness across different sections or with school norms. The anticipated distribution of grades is an average of 65-67% 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. Any bonus credits
earned will be added to this final score after scaling has been applied.

Course policies

Office hours

Your TA will hold a weekly office hour, and, in most cases, this is where you should look to receive help with the textbook content. Questions about class content, grading, and student welfare should be referred to your instructor, who also holds a weekly office hour. If you cannot make office hour times, appointments can be made outside of these times by emailing your instructor.

Emails/Piazza questions

In most cases we will answer questions within 48 hours (excluding weekends). If emailing, please include PSYC 101 in the header, and try to explain your current understanding of the concept in the email. If you have multiple questions, you should consider visiting an office hour.

Class attendance

We strongly recommend that you attend the classes. If you are unable to attend a class, reach out to a classmate to copy their notes. The PowerPoint slides will act as an outline for the material covered, and will not contain detailed notes. Material that is covered verbally in the lectures is eligible for inclusion in the exams. The lectures will cover material that is not covered in the textbook.

Class preparation

Before you attend the lecture, you will be expected to read the relevant chapters in the textbook and complete the associated Learning Curve activities. It is essential that you turn up to class prepared, as the lectures will only focus on key concepts and demand active participation, for which prior knowledge of the material is required.

A respectful environment

We aim to foster a respectful environment in line with the UBC Respectful Environment Statement (www.hr.ubc.ca/respectful-environment). To this end we will always aim to treat each of you with respect, and make all course decisions with the highest standard of ethics in mind. See https://students.ubc.ca/campus-life/diversity-campus for more resources.

Missed midterm exam

The midterm cannot be taken at another time. If you miss the midterm you will simply lose the number of points associated with it, i.e. your grade will be computed as if the missed test scored zero. The only exceptions to this are validated medical excuses. Personal or family circumstances that require you to miss the midterm must be verified by a written letter of explanation from a medical professional or student counsellor. Where a valid excuse exists, your mark from the missing Midterm will be calculated from the average of the Final exam. If you are experiencing personal difficulties, your instructor can be more supportive if you contact her ahead of the exam rather than after you have missed the exam.

Missed final exam

If you are a student from the Faculty of Arts, you must meet with an Arts Advisor within 48 hours of missing the exam (unless it is medically impossible). If you are from a different faculty, you should provide your instructor with a written note from your doctor attesting to the fact that on the day of the exam you were too ill to be expected to function reasonably. If you are experiencing personal difficulties, your instructor can be more supportive if you contact her ahead of the exam rather than after you have missed the exam.

Make-ups for the Final will differ from the version used for the rest of the class.

Turning up late for exams

A student will not be allowed to write a midterm or the Final if (1) s/he is 30 minutes late, or (2) another student has already finished and submitted their exam, whichever occurs first. Students in this situation will not be allowed to write the exam and will receive a zero. Absolutely no exceptions will be made.

There will be no “in and out” privileges once you’ve started an exam (e.g., bathroom break) unless you have a documented medical reason for doing so. Medical documentation must be disclosed to your
instructor at least 24 hours prior to the exam so that the proper arrangements can be made.

When time is called at the end of the exam, you must immediately stop working and submit your exam and scantron form. You will not be allowed more time for any reason. You must remain silent until every exam has been collected. Failure to stop working when time is called or to stay silent until all exams have been collected will result in a zero on the exam.

**Missed assignment deadlines**
If you miss a deadline, you will lose the number of points associated with that assignment. The only exceptions are validated medical excuses. Personal or family circumstances that require you to miss a deadline must be verified by a written letter of explanation from a medical professional or student counsellor.

**Academic Misconduct**
Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. Relevant to this course, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students’ responses. This will be used for every assessment we take in this course.

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 will 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.

All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult your instructor. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (http://students.ubc.ca/calendar) and read the University’s Policy 69 (available at http://universitycounsel.ubc.ca/files/2010/08/policy69.pdf).

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**Student welfare**
Your welfare is important to us. UBC has a variety of resources that can help students achieve health and wellness. Visit https://students.ubc.ca/health-wellness for more information. You can, of course, talk to your instructor about anything that is affecting your academic performance.

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**Course schedule**
The following information is also available as an electronic calendar on Canvas that you can import to your calendar app. Assignments are due by the end of the day.
| Week 1: Introduction and History (Chapter 1) |
|---|---|
| 5<sup>th</sup> Sept | Class |

| Week 2: Methods in Psychology (Chapter 2) |
|---|---|
| 11<sup>th</sup> Sept | Assignments due:
- Learning curve 2a, 2b, 2c
- Syllabus quiz (on Canvas) |
| 12<sup>th</sup> Sept | Class |

| Week 3: Neuroscience and behaviour part 1 (Ch 3, p77 – 104) |
|---|---|
| 18<sup>th</sup> Sept | Assignments due:
- Learning Curve 3a, 3b
- Data interpretation quiz 1 |
| 19<sup>th</sup> Sep | Class |

| Week 4: Neuroscience and behaviour part 2 (Ch3, p104 – 121) |
|---|---|
| 25<sup>th</sup> Sept | Assignments due:
- Learning Curve 3c, 3d |
| 26<sup>th</sup> Sept | Class |

| Week 5: Sensation and perception pt 1 (Ch4 p127 – 152) |
|---|---|
| 2<sup>nd</sup> Oct | Assignments due:
- Learning Curve 4a, 4b, 4c
- Mini-essay 1 |
| 3<sup>rd</sup> Oct | Class |

| Week 6: Sensation and perception pt 2 (Ch4 p153 – 168) |
|---|---|
| 9<sup>th</sup> Oct | Assignments due:
- Learning Curve 4d, 4e |
| 10<sup>th</sup> Oct | Class |

<p>| Week 7 |
|---|---|
| 17&lt;sup&gt;th&lt;/sup&gt; Oct | MIDTERM (Normal class time and location) |</p>
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<tr>
<th>Week 8: Consciousness (Ch5)</th>
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<tr>
<td><strong>23rd Oct</strong> Assignments due:</td>
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<tr>
<td>- Learning curve 5a, 5b, 5c</td>
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<td><strong>24th Oct</strong> Class</td>
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<tr>
<th>Week 9: Learning (Ch7)</th>
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<tr>
<td><strong>30th Oct</strong> Assignments due:</td>
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<tr>
<td>- Learning curve 7a, 7b, 7c</td>
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<tr>
<td>- Data interpretation quiz 2</td>
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<td><strong>31st Oct</strong> Class</td>
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<tr>
<th>Week 10: Memory (Ch6)</th>
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<tr>
<td><strong>6th Nov</strong> Assignments due:</td>
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<tr>
<td>- Learning curve 6a, 6b, 6c, 6d</td>
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<td><strong>7th Nov</strong> Class</td>
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<tr>
<th>Week 11: Language (Ch9 p352 – 369)</th>
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<tr>
<td><strong>13th Nov</strong> Assignments due:</td>
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<tr>
<td>- Learning curve 9a</td>
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<td>- Mini-essay 2</td>
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<td><strong>14th Nov</strong> Class</td>
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<th>Week 12: Thinking (Ch9 p370 – 393)</th>
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<td><strong>20th Nov</strong> Assignments due:</td>
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<td>- Learning curve 9b, 9c</td>
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<td><strong>21st Nov</strong> Class</td>
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<tr>
<th>Week 13: Current issues in psychology</th>
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<td><strong>28th Nov</strong> Class</td>
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**Final cumulative exam: date and location TBA**