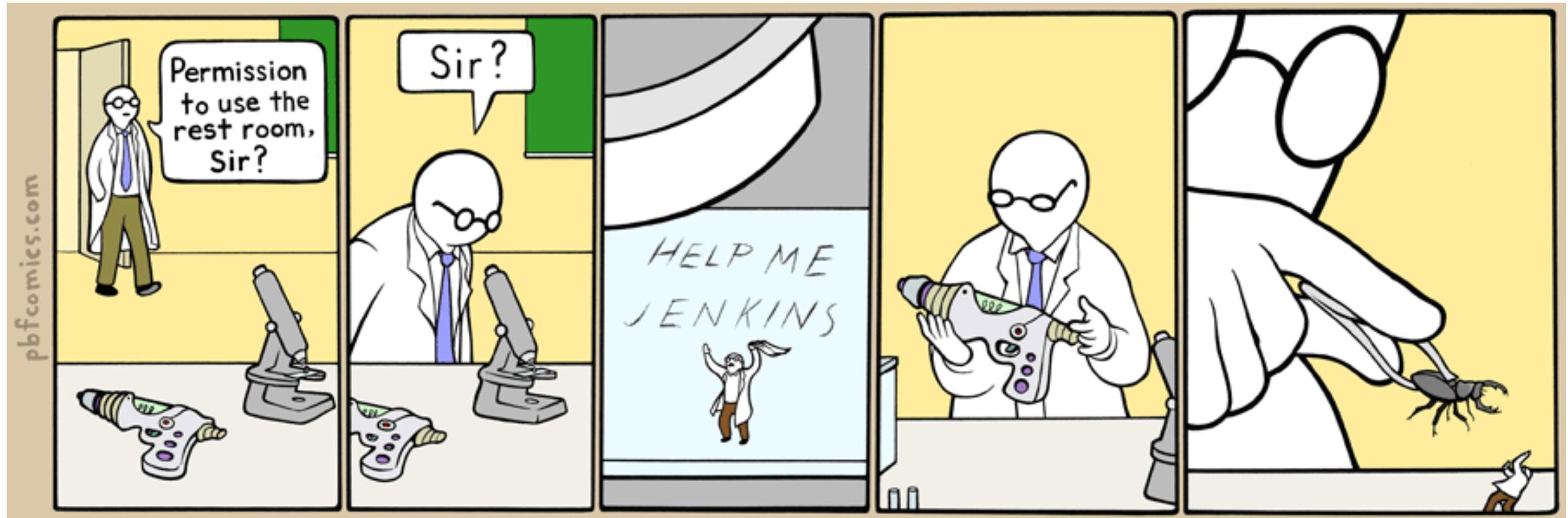


PSYC304-002: Brain and Behaviour!

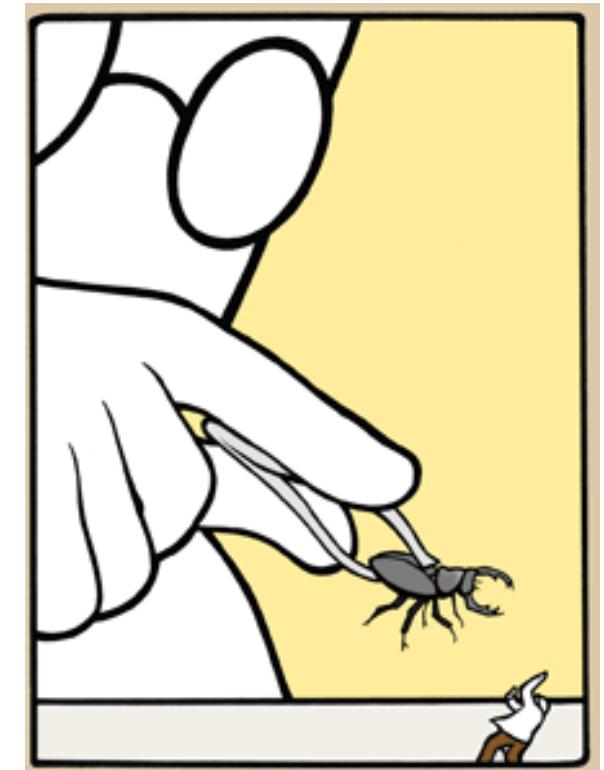
Jay Hosking, PhD

jayhosking@psych.ubc.ca



Lecture overview

1. Who is your instructor?
2. How is this course designed?
3. What is PSYC304 about?
4. What are the evaluations and policies for the course?



Jay who?

1. BSc Hons in Neuroscience, University of Toronto

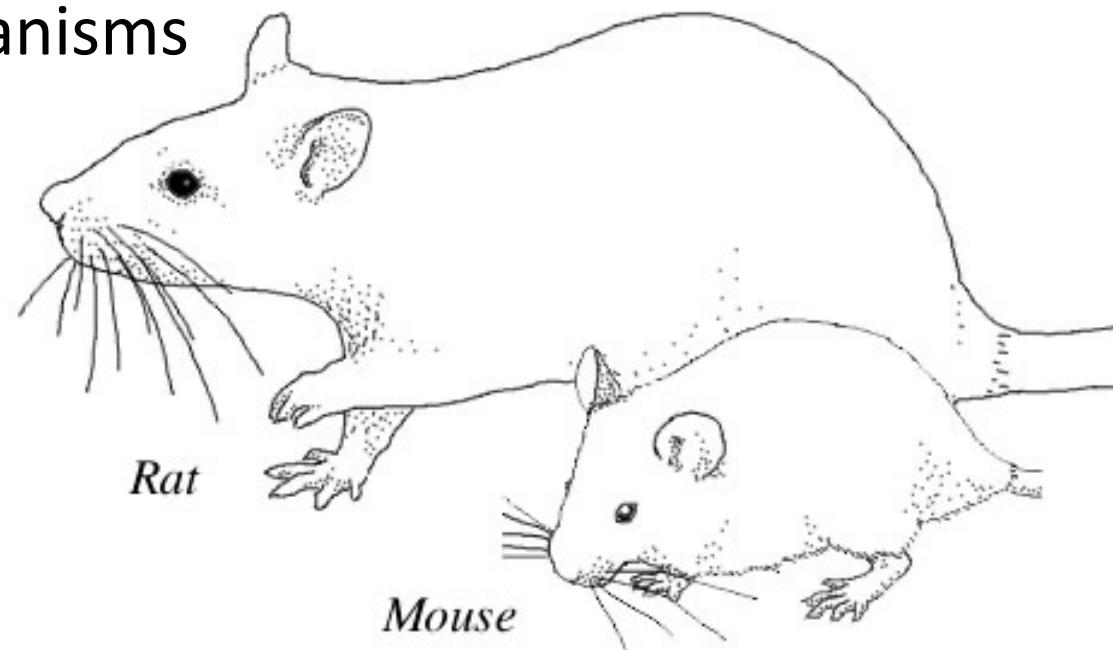
50:50 psychology:biology

Undergraduate research!

Sad music

Sleep mechanisms

Place cells



Instructor

Jay who?

2. PhD in Neuroscience, University of British Columbia

More research!

Individual differences in cost/benefit decision making

Esp. cognitive effort

Conferences, publications, etc.

PUZZLER: find the grad student!



Instructor

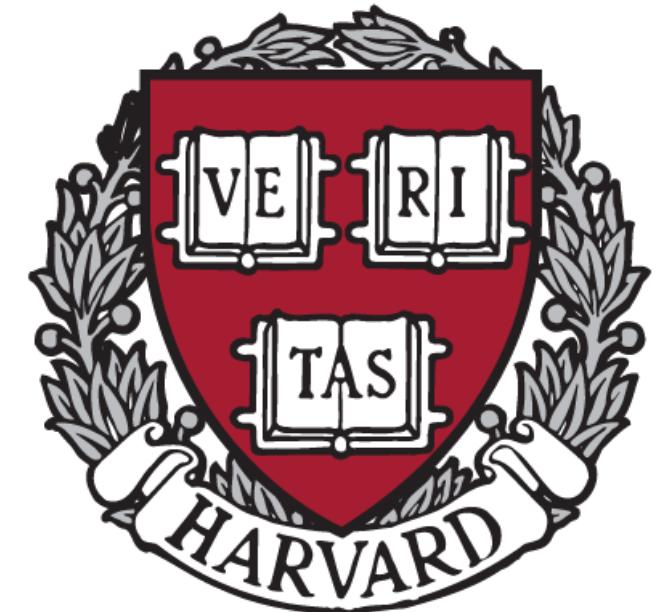
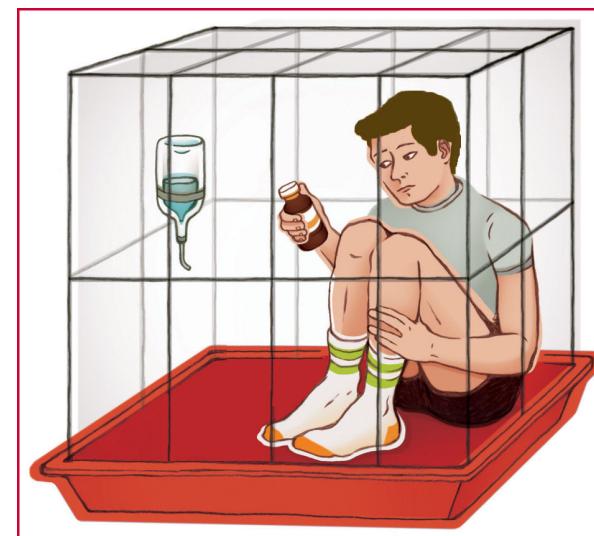
Jay who?

3. Post-Doctoral Fellowship in Neuroscience, Harvard University

More research, conferences, publications, etc.

Individual differences in decision making

Psychopathy, impulsivity, special populations



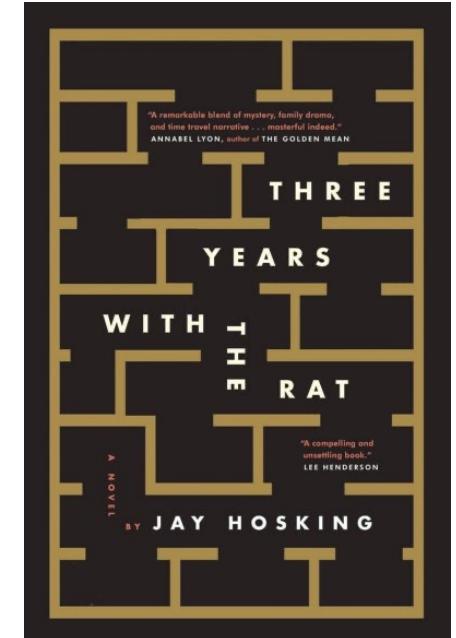
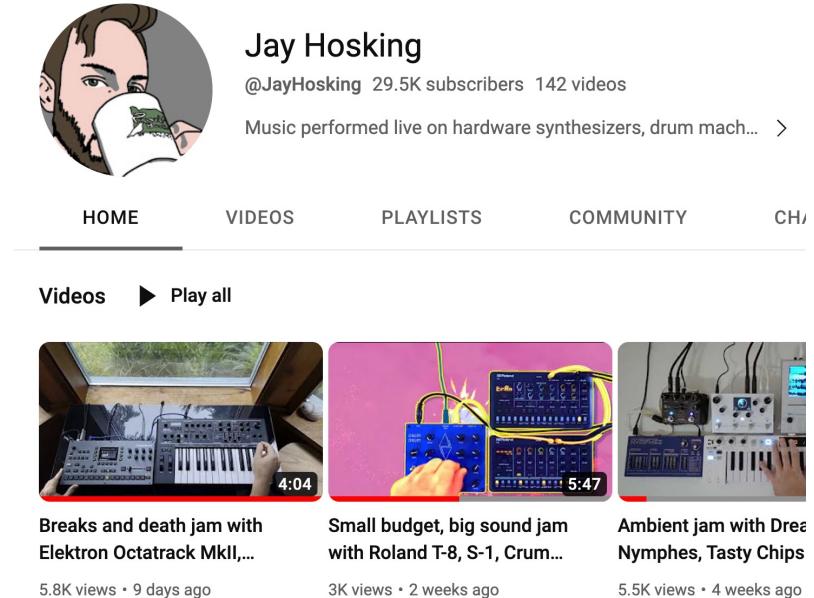
Jay who?

4. Other weird, embarrassing stuff

Diploma in Music Industry Arts: Recorded Music Production,
Fanshawe College

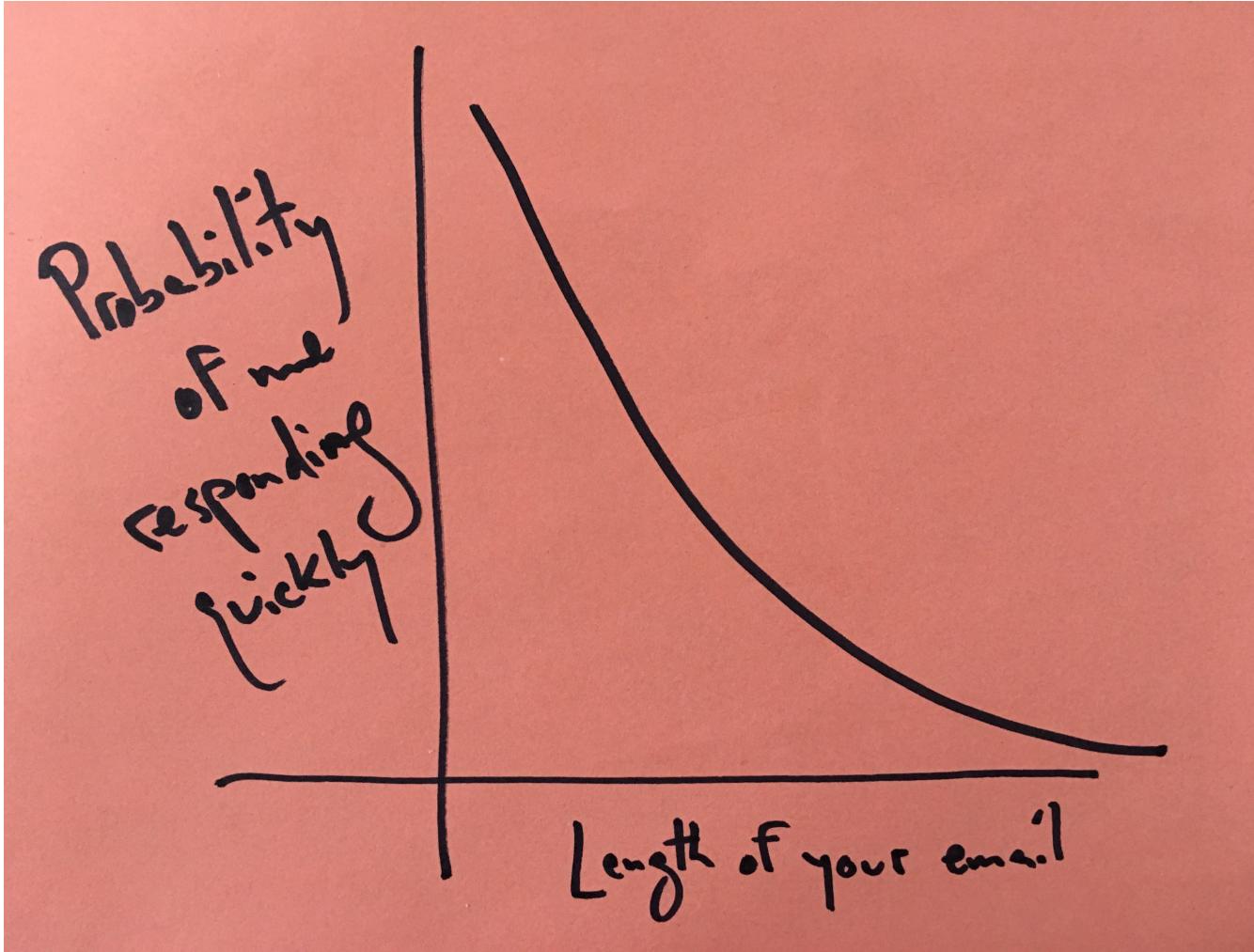
MFA in Creative Writing, University of British Columbia

YouTube? Pfft



Instructor

Hosking's Law (previously Vervaeke's Law)



- jayhosking@psych.ubc.ca
- BUT please do not book office hours by email!

How to book office hours:

Go to <https://jayhosking.youcanbook.me>



Jay Hosking's Office Hours!

Note that all office hours
are held online (Zoom).

Course format*

*for first semester only

- On-campus lectures
- On-campus exams
- A syllabus quiz online
- Optional Q&A exam review sessions



Course design

Lectures

Tuesdays & Thursdays on-campus, in-class lectures, 9:30-10:50am in Swing 121.

There may be audio recordings, but they will be sub-optimal, and cannot be guaranteed (we have been given no additional resources for these).

I will also hold open-ended Q&A sessions prior to each exam, sometimes in class, sometimes on Zoom.



On-campus class safety/health

Please perform a daily health self-assessment before coming to campus

If you are sick, please do not come to class (or to exams!)

Please give your fellow students the benefit of the doubt (re: masks, symptoms, etc.)

Arrange with your classmates to get notes

If I am sick, I will stay home



Discussion forum

- We'll be using Piazza, on Canvas
- Will be a student-driven space
- Please answer questions! (Wrong answers OK)
- Also a great space to talk about interesting science/tangents, or to find fellow students to study with
- Be good to one another, please



Course design

Psychology

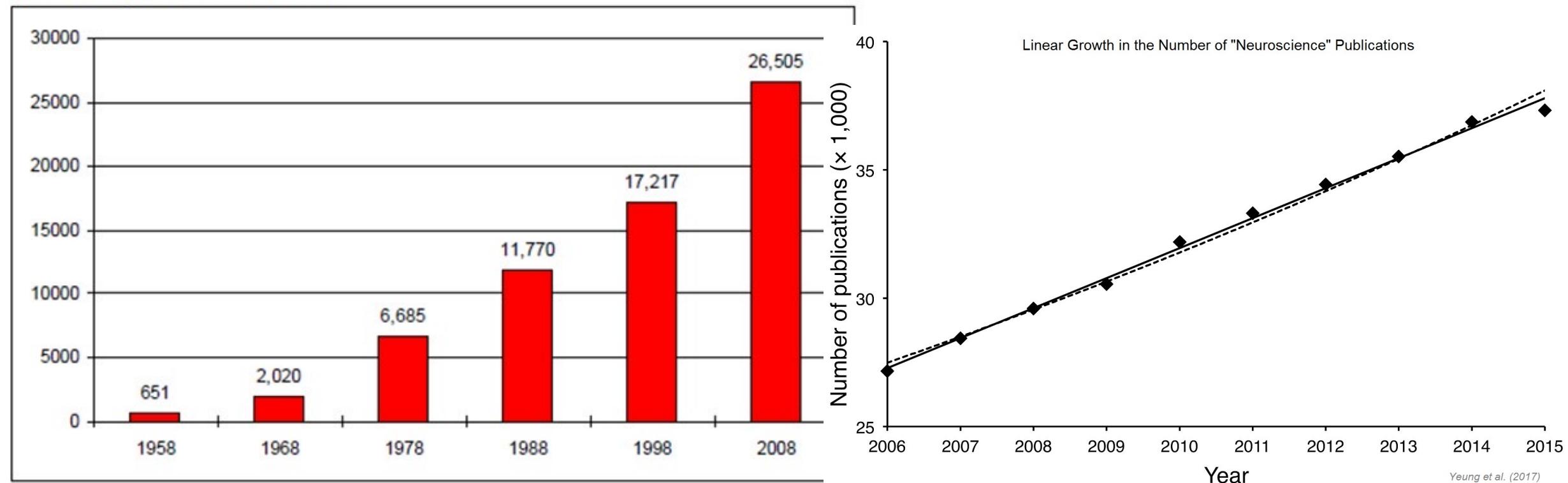
- “Psyche” → *mind*
- “-ology” → *the study of*
- Psychology sounds like “the study of the mind”
- But in many key respects, psychology is the study of human behaviour



Neuroscience

Neuroscience is the scientific study of the nervous system.

Figure 2. The growth of neuroscience



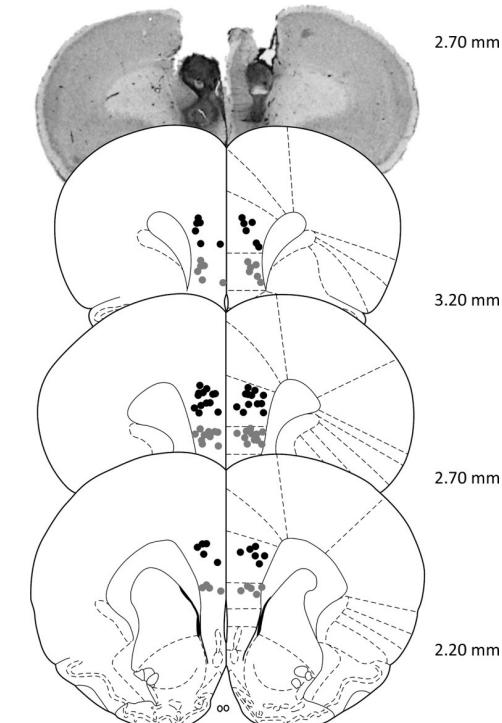
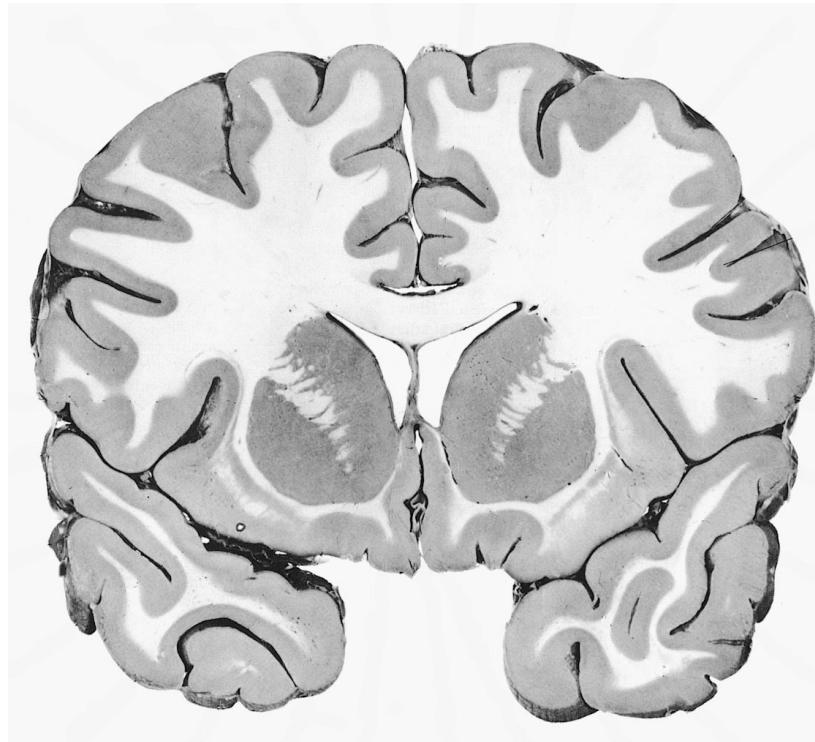
Numbers of papers published annually in the neurosciences 1958 – 2008 (source: Web of Science).

from: <http://blogs.lse.ac.uk/impactofsocialsciences/2014/10/01/investments-in-science-lead-to-bubble-behaviour/>

Neuroscience

Neuroscience has many subdisciplines, one of which is **behavioural neuroscience**, the study of the relationship between brain and behaviour.

And behavioural neuroscience itself has a number of subdisciplines. It relies on both human and non-human animal work.



Hosking *et al.* 2015

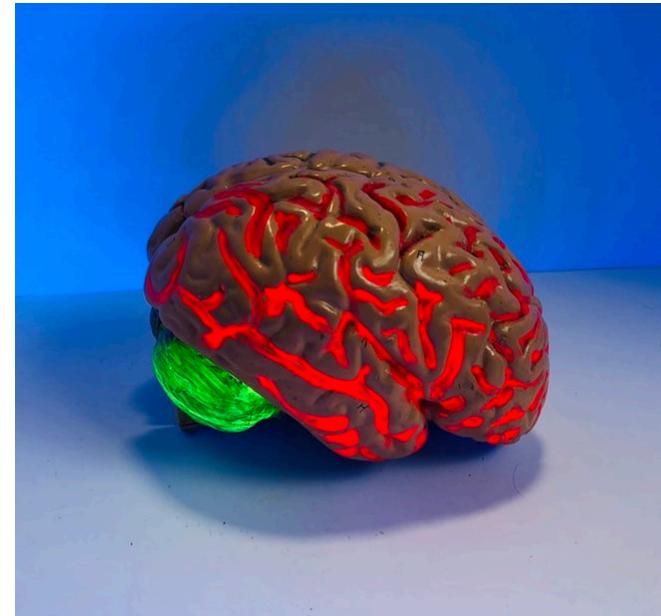
PSYC304

This course is about the fundamentals of neuroscience and how they relate to our behaviour and mind.

Note: this is an Arts course designed to teach you neuroscience from first principles.

This is a two-semester course! The incredible Dr. Stan Floresco teaches the second half.
In our first semester together, we will cover:

- The brain
- Research principles
- The neuron
- Neural communication
- Neuroscience research methods & tools
- The endocrine system
- Sensation and perception
- Motor control



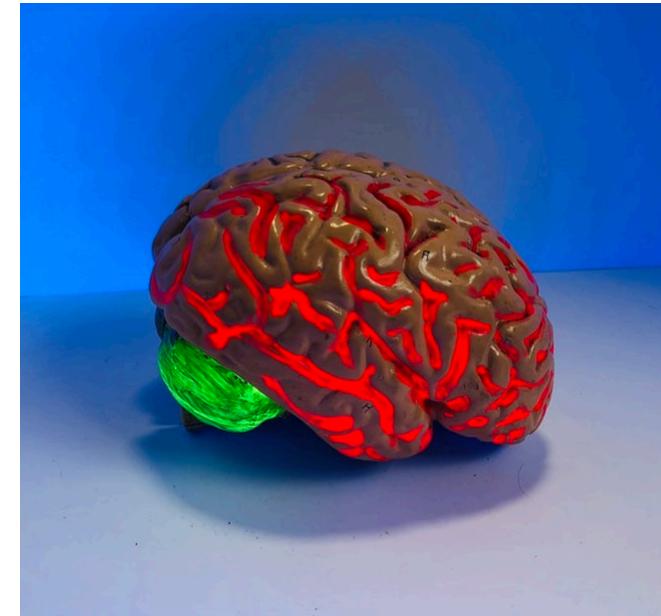
PSYC304

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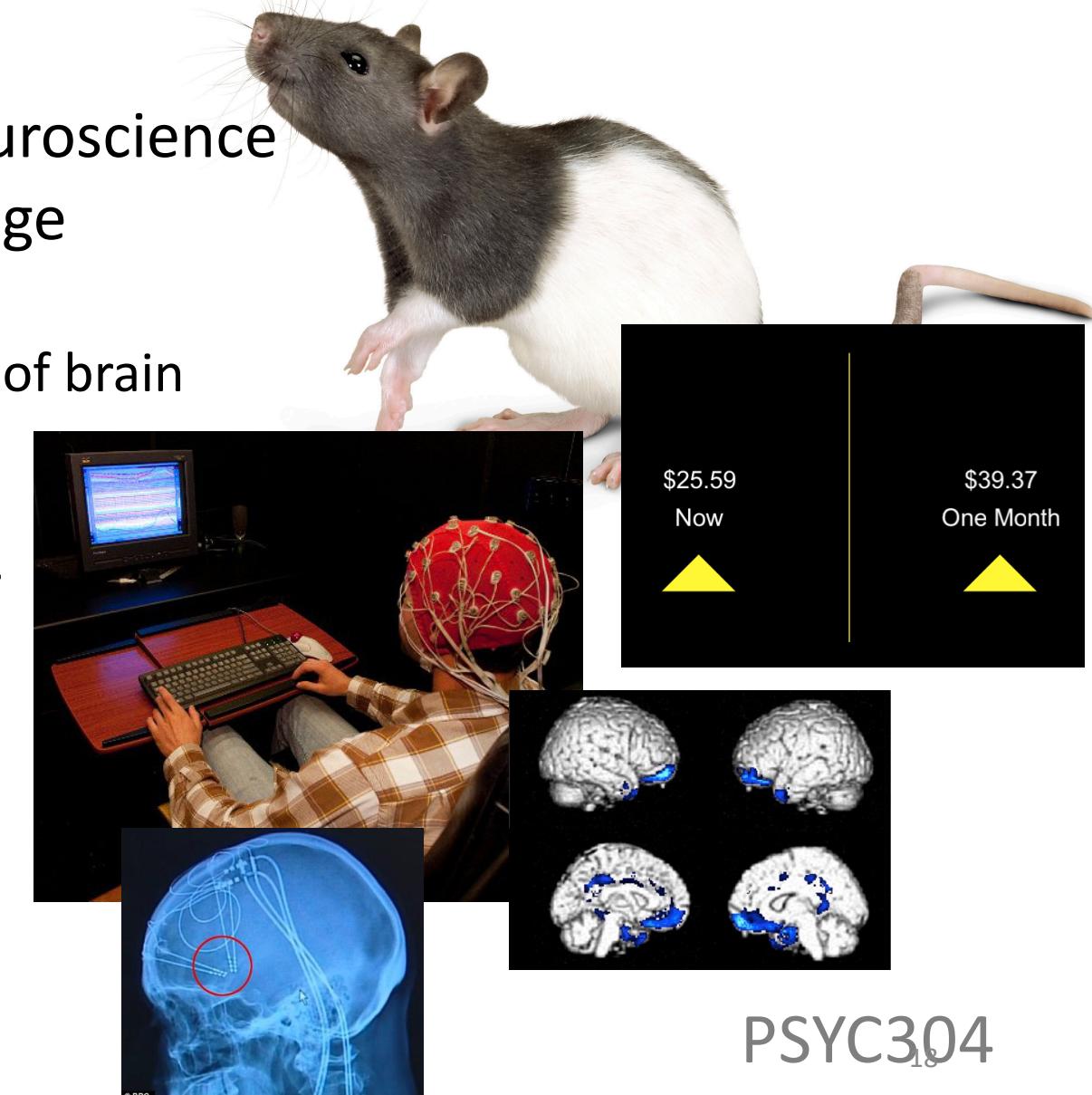
In the second semester, with Dr. Floresco, you will (probably) cover:

- Addiction and motivation
- Hunger and eating
- Emotions and stress
- Learning and memory
- Sleep
- Attention and consciousness
- Psychopathology



The role of research in neuroscience

- Research is a fundamental part of neuroscience
- Neuroscience addresses a diverse range of questions, e.g.,
 - What does depression look like in terms of brain structure/function?
 - How does the brain recognize faces?
 - How do we make decisions? Why do our similar brains make different choices?
- **Different research methods are needed to address different neuroscientific questions**



2023W1-2

Home

Piazza

Grades

Zoom

Course Evaluation

Calendar

Inbox

History

Help

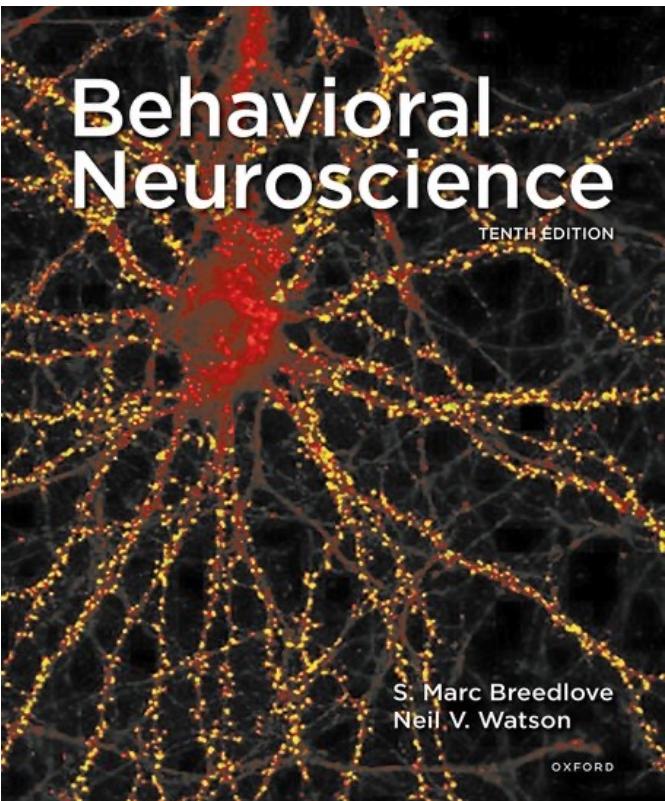
PSYC 304 002 2023W1-2 Brain and Behaviour

[Jump to Today](#)



[Read and download the syllabus here!](#)

Instructor: Jay Hosking



Resources

Website: canvas.ubc.ca
Slides, extra readings, grades, announcements

Reading materials: *Behavioral Neuroscience 10e*

by Breedlove and Watson

*most recent older edition is likely sufficient

1st semester: The textbook is **recommended**, not required

2nd semester: The textbook is **required**

Additional reading materials may be provided via Canvas; these will be clearly marked as supplemental or required

Evaluation for term 1

Syllabus quiz:	2%
Exam 1:	16%
Exam 2:	16%
Exam 3:	16%
<hr/>	
Total:	50%
Bonus research participation:	3%*



*You can only get 3% maximum across the entire year

Exams

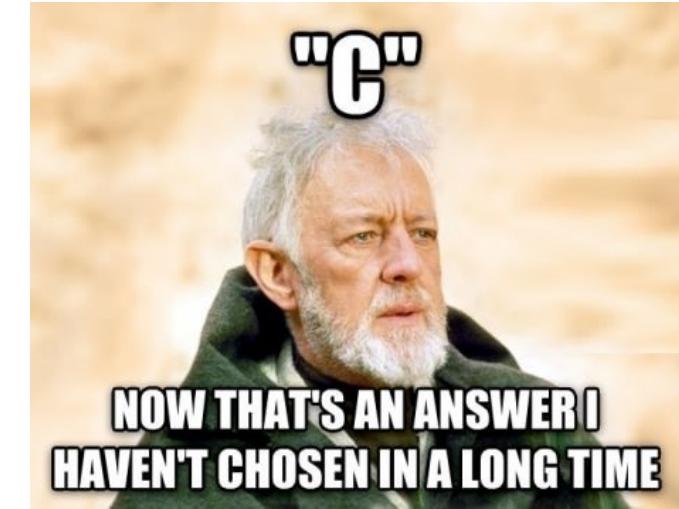
Midterm Exam 1 (16%): Tues, Oct 10th 9:30-10:45am

Midterm Exam 2 (16%): Thurs, Nov 9th 9:30-10:45am

“Final Exam” (16%): Dec 11th-22nd (date/time TBD)

You must be available to write at any time during this period.

- Exams must be written on campus (no online option)
- Exams are “closed book”
- The exams are not cumulative
- Format: multiple-choice and short-answer questions
- All lecture materials are fair game
- Only lecture materials will be tested (not textbook)
- Do not come to the exam if you are sick
- Accommodations are at my sole discretion, only rarely require documentation, and are only for unavoidable hardship
- Please see syllabus for complete policies on accommodations
- Make-up exams must be completed within one week of the original date
(please organize this with your amazing TAs)



Syllabus quiz

- Based on the syllabus!
- **Worth 2% of your grade**
- Designed to reduce student anxiety and confusion when encountering a complication within the course
- Due Tuesday, September 19th by 11:59pm

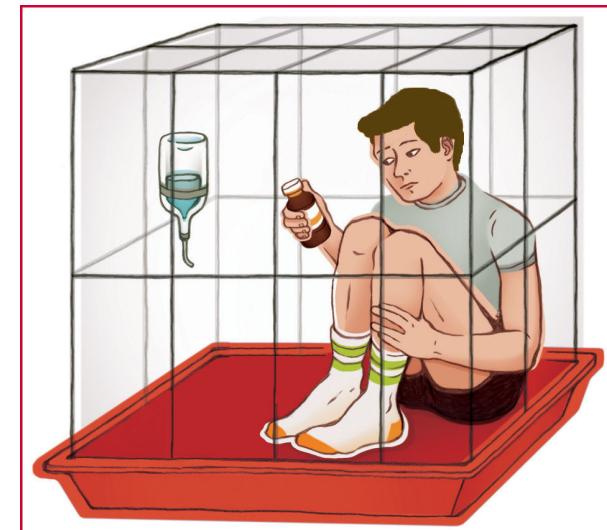


Syllabus quiz



Research Participation (up to 3% bonus across two semesters)

- As noted, research is fundamental in psychology and neuroscience
- Much of the research we are studying is based on studies with undergraduates like you!
- See syllabus for more details
- Receive **up to 3%** bonus marks for your final grade by participating in the studies conducted by the Psychology Department
- Coordinated through the Human Subject Pool (HSP) system
 - <https://ubc-psych.sona-systems.com>
- Each credit earned = 1% for the course
- Sign up immediately!



Course schedule (tentative)

Week	Dates	Topic	Relevant reading
1	Sept 4 th -8 th	No class Tues Sept 5 th Course orientation Thurs Sept 7 th	This syllabus
2	Sept 11 th -15 th	Brain basics	Chapter 2
3	Sept 18 th -22 nd	Research methods basics	Chapter 1
4	Sept 25 th -29 th	Neuroanatomy	Chapter 2
5	Oct 2 nd -6 th	Neural communication I	Chapter 3
6	Oct 9 th -13 th	Optional pre-exam Q&A online (Oct 9 th PM) Exam 1 (October 10th 9:30-10:45am) *No class Thurs Oct 12th	
7	Oct 16 th -20 th	Neural communication I cont'd, II	Chapter 3, 4
8	Oct 23 rd -27 th	Neural communication II	Chapter 4
9	Oct 30 th -Nov 3 rd	Neuroscience research tools	Chapter 1
10	Nov 6 th -10 th	Optional pre-exam Q&A in class (Nov 7 th) Exam 2 (November 9th 9:30-10:45am)	
11	Nov 13 th -17 th	No classes Nov 13 th -15 th (midterm break) The endocrine system Thurs Nov 16 th	Chapter 5
12	Nov 20 th -24 th	Principles of sensation; touch	Chapter 8
13	Nov 27 th -Dec 1 st	Vision	Chapter 10
14	Dec 4 th -7 th	The motor system (time permitting)	Chapter 11
Exams	Dec 11 th -22 nd	EXAM 3 (DATE/TIME TBD)	



* Note that UBC Vancouver classes normally scheduled on Thursday, October 12th are cancelled, and will be replaced by the classes normally scheduled on a Monday.

Attendance is great

- Come to class, and come on time
- Keep ahead of the readings (if there are any / if needed)
- Take detailed notes during lecture
 - Much of what I say is **NOT** on the slides
 - **i.e., The lecture slides are not sufficient for studying!**
- Absences are necessary sometimes; if you miss a class, it is your responsibility to catch up (e.g. via the audio recordings if available, and/or through classmates' notes)
- If you experience any persistent personal issues during the course (e.g. mental health issues, death or loss of someone close, other long-term stressors), please come speak with me right away
- Anything you tell me will be kept in strictest confidence, and I will help structure the remainder of your time in the course so as to accommodate your situation
- However, in order to help, I need to know. So if something is going on, please send me a quick note and we can set up a time to meet and chat



Inclusivity is great

- We have diverse backgrounds and social identities
- This diversity must be supported
- I anticipate no issues with this



Learn more about UBC Psychology's initiatives for equity, diversity, and inclusion at
<https://psych.ubc.ca/about/equity-inclusion/>

Admin & policies

Academic integrity is great

My expectation is that you'll be acting with the highest integrity in all our interactions.

General principles:

- Do your own work
- Avoid collusion
- Do not share these materials with the outside world
- Acknowledge others' ideas and avoid unintentional plagiarism

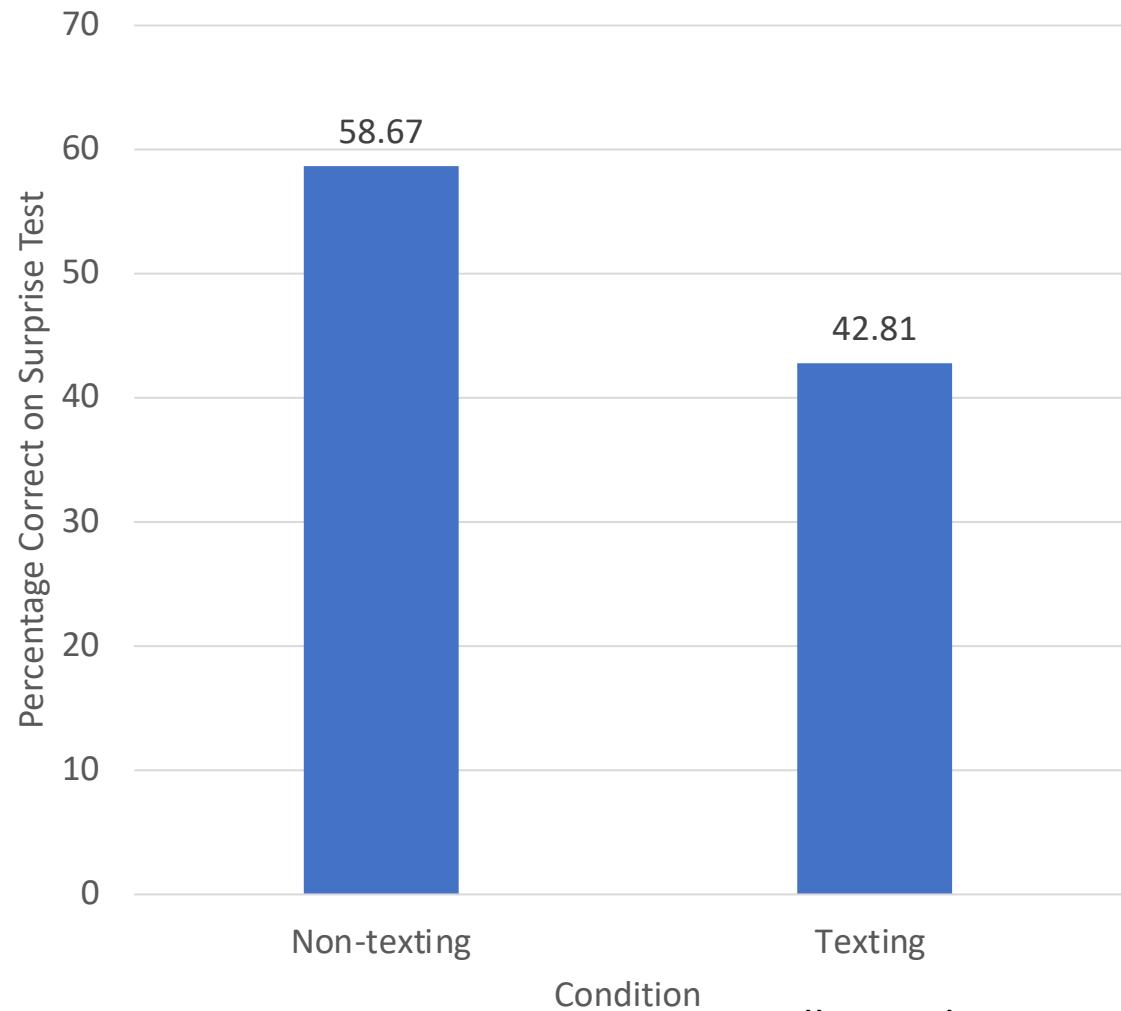


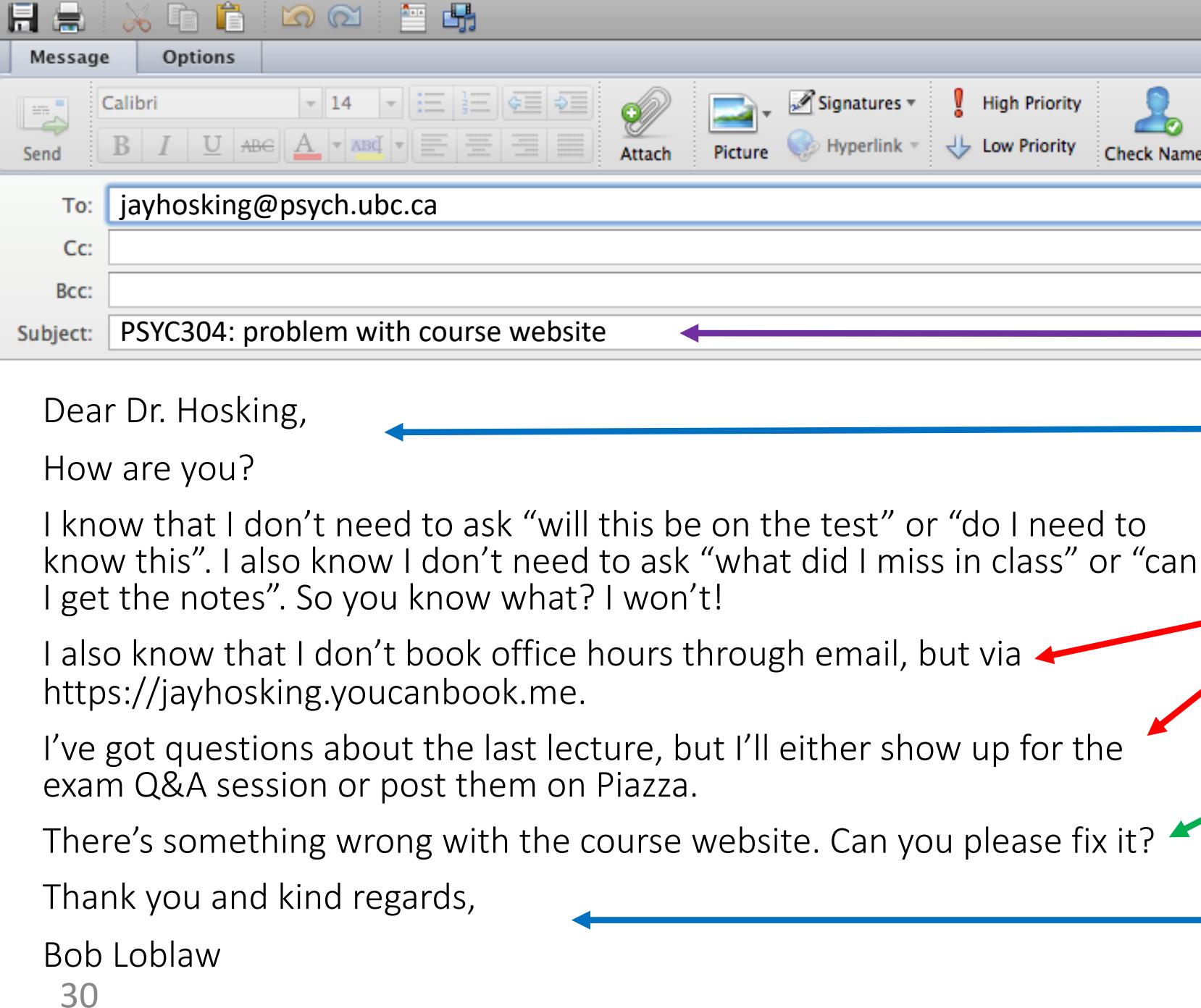
Our thoughts, ideas, and words are the cultural currency of science. Do not borrow others' thoughts, ideas, and/or words without explicitly making their origin clear. I encourage you to read the syllabus and UBC policies thoroughly.

If you are at all in doubt, please come to me first.

In-class etiquette

- Be punctual
 - If unavoidably late, come in quickly and quietly
- **Phones on silent and put away**
- Please only talk in class if you are willing to share
- Please use email etiquette when contacting us





E-mail Etiquette

Please include course

Be polite (please)

Please don't ask these
or related questions

But please do ask
these or related
questions

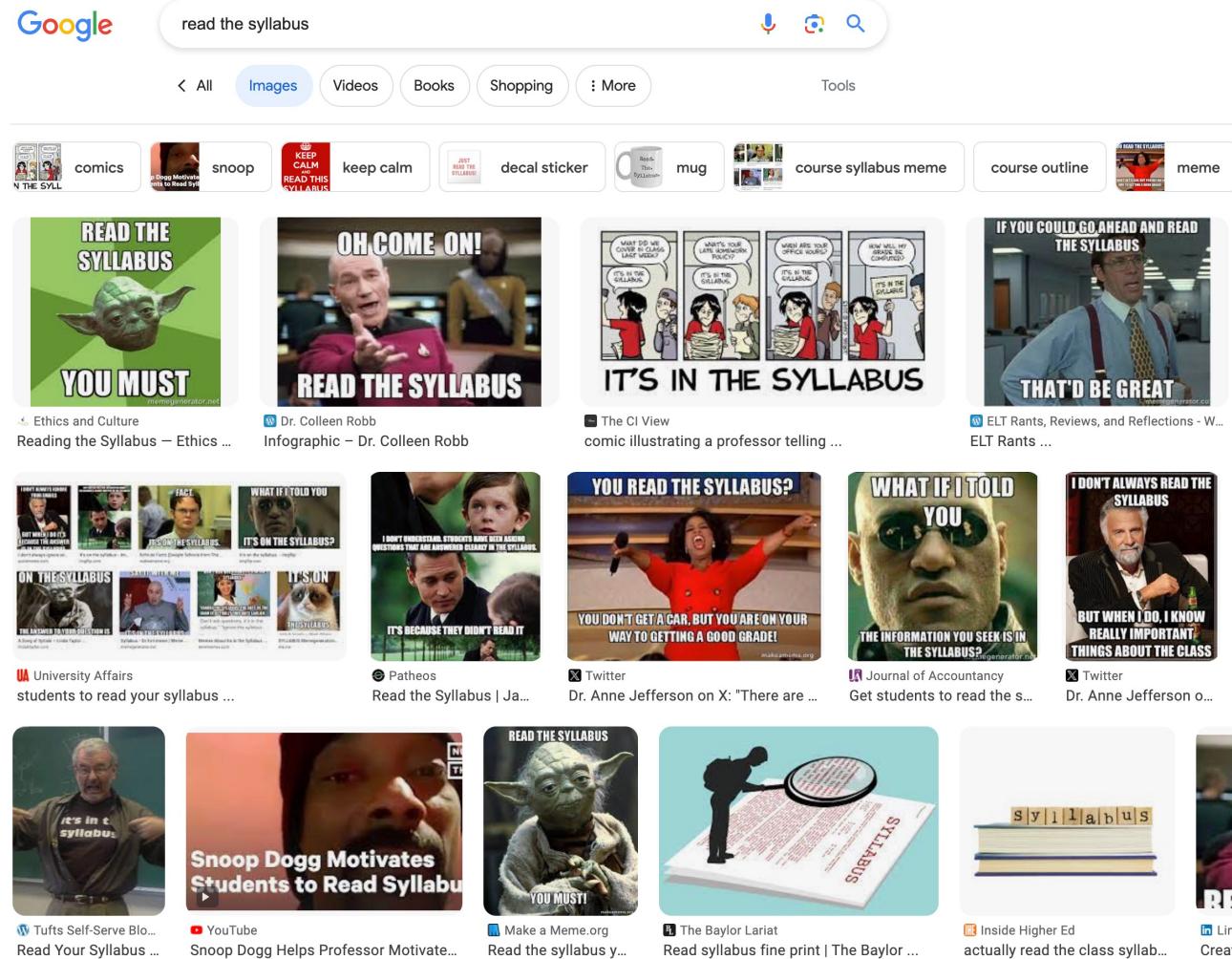
Admin & policies

How to succeed in the course

1. Recognize that you're brilliant and you can succeed
2. Recognize that being brilliant isn't enough
3. Always attend, always read ahead
4. Make friends, make study groups
5. Take advantage of the audio recordings
6. Be prepared for review sessions
7. Ask questions—I love them!
8. Take advantage of office hours (though not for content)
9. Treat learning objectives as homework
10. Take care of each other, and care about each other's success!
11. Recognize that you may be at different points in your learning than others, and with differing expertise
12. Recognize that sometimes your goals and my goals align, and sometimes they don't



Nobody wants memes



Please read the syllabus.