

Neuroscience 5850 –Introduction to Behavioural Neuroscience July 6-24, 2020

Instructors: Dr. Robbin Gibb, Professor, Department of Neuroscience, Faculty of Arts and Science

Gibb Contact Details

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Teaching Assistants:

Frankie Pope

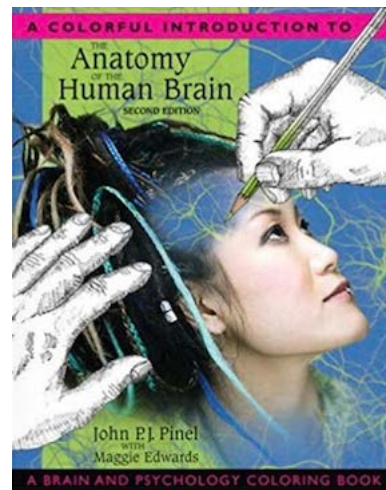
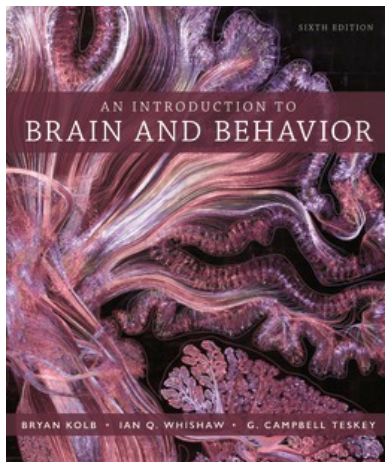
Email: Frances.pope@uleth.ca Classroom: Online

Consultations: By appointment through email. The instructors will be available for discussions related to this course, help with the weekly assignments, and feedback on written assignments, outside of the regularly scheduled times. Arrangements for these meetings can be made by contacting the instructors by e-mail. If necessary a Zoom meeting can be set up for face-to-face consultation.

Required Texts:

An Introduction to Brain and Behaviour, by Kolb, Whishaw and Teskey, 6th Edition

A Colorful Introduction to the Anatomy of the Human Brain: A Brain and Psychology Coloring Book by John P.J. Pinel



Course Description:

This course aims to provide an overview of the neuroanatomical features of the brain. We will cover the basics of epigenetics and how experience is capable of altering the brain. Neuroplasticity is a term used to describe the brain's ability to change. We will explore the forms and features of neuroplasticity. The objective of this course is to provide educators with a grounded understanding of the brain anatomy that subserves the cognitive processes of learning and remembering. Students will explore how to apply this knowledge in the classroom. This course is designed to be

highly interactive and offers a number of readings to supplement student knowledge in the neuroscientific domain as it relates to education. Students will have opportunities to develop neuroscientific expertise that will enable appropriate judgements of what constitutes sound brain-based educational practice.

Course Requirements:

- (1) **Online Class Discussion.** A discussion forum will be available on Moodle 15% of course total grade.
- (2) **Pages in the coloring book will be assigned** to be completed. Once completed students can upload a screen shot of the assigned work. Worth 25% of the total grade.
- (3) **Online Brain Story Certification Course.** Students will be required to complete the Brain Story Certification Course offered by Alberta Family Wellness Initiative. The certificate verifying completion of the course will earn the student 25% of course total grade.
- (4) **Quizzes.** There will be 3 in class online quizzes (one each Friday at the start of class). The quizzes may consist of short answer questions, multiple choice, and/or matching questions (diagrams) and may draw on material discussed at any time prior to the test date. These quizzes will be open book. These quizzes are designed as formative assessments to extend students' understanding of brain anatomy, brain plasticity, and learning and memory - no grade will be assigned
- (5) **Paper.** There will be one 5-page paper due on July 20 on a topic relevant to neuroscience and education and pre-approved by the instructor. Pre-approval should be completed by Thursday, July 9th. Paper is due July 24th. Worth 25% of course total grade
- (6) **Class presentation of Paper.** Each student will give an 5 minute oral overview of their paper and answer questions (2 min). 10% of total grade.

Grading: To be determined via class discussion and consensus.

For reference passing grades are typically: A+ (97+), A (96-93), A- (92-90), B+ (89-87), B (86-83), B- (82-80), Failing grades: C+ (79-77), C (76-73), C- (72-70)

Tentative Course Schedule:

Week 1

July 6: First Day of Class Welcome. Ratify Course Outline. Personal Powerpoints as an Introduction. Pre-assessment survey. Fundamentals of brain anatomy

July 7: Fundamentals of brain anatomy continued

July 8: Fundamentals of brain continued

July 9: Sex differences and the brain

July 10: Epigenetics and experience; Work on Brain Story Certification

Week 2

July 13: Epigenetics and Experience

July 14: Neuroplasticity

July 15: Neuroplasticity

July 26: Learning and Memory

July 17: Memory: Types and systems of memory. Work on Brain Certification

Week 3

July 20: Paper due. All coloring due.

July 21 & 22: Memory- continued

July 23 Presentations: 5 minute summary of paper for class

July 24: Last Day of Class- “Wrap- Up & Debrief” Brain Story Certification due

Additional Course Information

Courtesy and Integrity

All participants in this class with treat all others with the utmost courtesy and respect. Electronic distractions should be avoided.

Academic Integrity is expected from all students. Any academic offence will be dealt with as prescribed in the calendar.

Writing Expectations

APA format should be adhered to for writing purposes. Assignment length does not include the title page (required) or the references. Information regarding APA standards can be obtained from the instructors.

[Click here for discipline policy for graduate students](#)

Oki, and welcome to the University of Lethbridge. Our University's Blackfoot name is Iniskim, meaning Sacred Buffalo Stone. The University is located in traditional Blackfoot Confederacy territory. We honour the Blackfoot people and their traditional ways of knowing in caring for this land, as well as all Aboriginal peoples who have helped shape and continue to strengthen our University community.