

GRADUATE NEUROANATOMY

Neurobiology & Anatomy 7710 / Neuroscience 6060

Fall 2021

Dates:	Tuesdays, Thursdays and Friday beginning August 23
Time:	10:45-11:35 AM (end time is approximate)
Place:	HSEB 2948, and virtual
Instructors:	KC Brennan – 2 lectures Melissa Cortez - 1 lecture Michael Deans – 1 lecture Richard Dorsky – 2 labs, 1 lecture Chuck Dorval – 2 lectures Adam Douglass – 2 labs, 3 lectures Jace King – 1 lecture Alex Shcheglovitov – 1 lecture Monica Vetter – 2 lectures Matt Wachowiak – 1 lecture Peter West – 1 lecture Moriel Zelikowsky - 1 lecture 2 total labs, 17 lectures
Format:	Lectures and laboratory sessions
Testing:	2 Exams
Suggested Texts:	D.E. Haines, <i>Neuroanatomy: An Atlas of Structures, Sections, and Systems</i> D.E. Haines, <i>Fundamental Neuroscience for Basic and Clinical Applications</i>
Pre-requisites:	Open to all graduate students and postdoctoral fellows; Undergraduates by permission
e-mail contact:	adam.douglass@neuro.utah.edu (Adam Douglass, course organizer)

Course Web site: Canvas; access through Campus Information Service

Course Schedule

Date	Day	Instructor	Lecture
8/23/21	Monday		Beginning of fall term
8/24/21	Tuesday	Douglass	Introduction: Basic plan, embryology, ventricles, vasculature
8/26/21	Thursday	Brennan	Brainstem and cranial nerves I, Medulla
8/27/21	Friday	Brennan	Brainstem and cranial nerves II, Pons & Midbrain
8/31/21	Tuesday, NOTE: 10:45- 12:15 PM	Dorsky & Douglass	<i>Lab 1 – HSEB 4300: Cranial and Spinal nerves, Vessels, Cerebral Hemispheres</i> HyperBrain Ch. 1: The Cranial Nerves and the Circle of Willis; Ch. 2: The Cerebral Hemispheres <i>Note this lab will take 1.5 hours.</i>
9/2/21	Thursday	Shcheglovitov	Forebrain (Cortex and Thalamus)
9/3/21	Friday	Dorsky	Vision
9/7/21	Tuesday	Wachowiak	Olfaction and Gustation
9/9/21	Thursday	Deans	Vestibular and Auditory Systems
9/10/21	Friday NOTE: 10:45- 12:15 PM	Dorsky & Douglass	<i>Lab 2 – HSEB 4300: Sensory Pathways and Cortical Anatomy</i> HyperBrain Ch. 3: Coronal Sections & Ventricular System <i>Note this lab will take 1.5 hours.</i>
9/14/21	Tuesday	---	Exam 1
9/16/21	Thursday	Cortez	Peripheral and Autonomic Nervous Systems; Spinal Cord
9/17/21	Friday	Vetter	Sensory Systems – Spinothalamic tract
9/21/21	Tuesday	Vetter	Sensory Systems – Dorsal column medial lemniscus pathway
9/23/21	Thursday	Bonkowsky	Motor systems – Upper and Lower
9/24/21	Friday	Dorval	Motor systems – Basal Ganglia

9/28/21	Tuesday	Dorval	Cerebellum
9/30/21	Thursday	Douglass	Hypothalamus
10/1/21	Friday	West	Hippocampus
10/5/21	Tuesday	Zelikowsky	Limbic System
10/7/21	Thursday	King	Intro to Neuroimaging Techniques
10/8/21	Friday	----	EXAM 2 – END OF COURSE

Additional Course Information

Reading. Many textbooks will do, but our official text is D.E. Haines's *Fundamental Neuroscience for Basic and Clinical Applications*. Readings from this book are not "assigned" so much as being recommended if students would like to follow up on topics covered in the lectures. We have found that students prefer to purchase their textbooks online so we do not have the university bookstore stock textbooks for this class. However, the Health Sciences Bookstore usually has some copies available for sale. Additional readings from the literature will be assigned for some lectures.

Laboratories. There will be two laboratory sessions, held in the Health Sciences Education Building. Instructors will help you dissect preserved human brains and identify structures of interest. Gloves and dissecting tools will be provided at each lab; lab coats are not required but you may wish to bring one.

Testing and Grading. Two written examinations (Exam 1 is worth 40% of the final grade, Exam 2 is worth 60%) covering material presented in the lectures, labs and readings. The exams are not comprehensive (except that a working knowledge of earlier material is expected). Typically, an overall average of 70% correct or 1.5 standard deviations below the class mean score (whichever is lower) is required to pass the course.

Course Website. There is a site for the course on the university's Canvas site, accessible from the main university web page with your student ID or a special code given to auditors who request it from the instructor. The course syllabus, reading assignments, lecture notes, lecture PowerPoints, assigned readings, lab manual, test results and grades will be posted on this website.

Hyperbrain. The online neuroanatomy tutorial, HyperBrain, was originally developed as a teaching resource for medical students and can be a valuable tool for this course, as well. Throughout the course, students will be pointed toward relevant sections of the HyperBrain syllabus. It is highly recommended that you work through the illustrations provided there. <https://library.med.utah.edu/kw/hyperbrain/>

COVID-19 Guidelines

Masking. As of August 2021, the U of U has reinstated the requirement for all personnel to wear masks when inside SOM buildings, including our classroom and the neuroanatomy lab in HSEB.

Vaccination. While Utah law prohibits state universities from requiring COVID-19 vaccinations, all members of the University of Utah community are encouraged to receive a COVID-19 vaccine. Vaccination is highly effective in preventing severe COVID-19 symptoms, hospitalization, and death from coronavirus. Vaccinations are available to everyone 12 years and older. Appointments are open in the U of U Health system for patients as well as additional vaccine providers throughout Utah. For up-to-date campus vaccination information go to: <https://alert.utah.edu/covid/vaccine/>

Testing and Exposure. Students are encouraged to take advantage of university COVID-19 testing services: <https://alert.utah.edu/covid-19-testing/>. Voluntary asymptomatic testing will continue to be available weekly for all members of the campus community. Students must self-report if they test positive for COVID-19 via this website: <https://coronavirus.utah.edu/>.

In-Class Attendance Policy. In-class attendance is generally expected of all students, and a remote learning option will not be made available under the current conditions of the pandemic. However, in the event that a student is not able to attend due to a positive COVID-19 test, or self-isolation related to a recent exposure to COVID, the course organizer will work with the student to accommodate their absence. If you need to seek an ADA accommodation to request an exception to this attendance policy due to a disability, please contact the Center for Disability and Access (CDA). CDA will work with us to determine what, if any, ADA accommodations are reasonable and appropriate.

Statement on Equity, Diversity, and Inclusion

The intense demands of graduate education require an open and supportive environment, in which students and instructors communicate freely about the course material, and are able to express their unique personal perspectives both in and out of class. Being supportive of all kinds of diversity – in race, ethnicity, gender identity, sexuality, socioeconomic status, disability, age, and other aspects of life – is essential for creating such an environment. The course instructors are committed to creating a culture of mutual respect in which all students are included and heard, and the expression of opinions rooted in one’s lived experience is valued and encouraged.

I sincerely hope that students will feel empowered to speak up if they feel that the course does not meet these ideals. Several options are available if you are ever uncomfortable with something that was said or done, either in class or during other interactions related to our course activities. First, you are always welcome to raise the issue directly with me, and we will work together to find a solution. Second, you can bring the issue to the attention of the class, for a group discussion. Third, if you do not feel comfortable approaching me directly, you may choose to communicate via a third party, such as an academic advisor. Fourth, you can bring any questions or concerns to the School of Medicine’s Office of Health Equity, Diversity, and Inclusion (<https://medicine.utah.edu/ohedi/about-us/>) or the U of U Office of Equity, Diversity and Inclusion (<https://diversity.utah.edu/>).