

**NEUROENDOCRINOLOGY COURSE (ANAT-322) January-April 2024**  
**Department of Anatomy and Cell Biology, McGill University**

**Description:** This undergraduate-level course is intended as an overview of the different neuroendocrine systems participating in homeostasis. Structure, functioning and integration of neuroendocrine systems are discussed.

**Time & Place:** Tuesday (1.5hr) from 4:00 to 5:30 PM, SADB room 2/36  
Thursday (1.5hr) from 4:00 to 5:30 PM, SADB room 2/36

**Schedule :** Classes are from January 4th, 2024 to April 9th, 2024, inclusive.  
Spring break from March 4-8, 2024 (no class)

**IMPORTANT NOTE:** In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change."

**Course specifics:**

**Textbooks and supplementary materials:** Several books are available through McGill Library (McIntyre):  
"Neuroendocrinology in Physiology & Medicine" edited by P.M. Conn and M.E. Freeman (1999),  
"An introduction to Neuroendocrinology" by Richard Brown,(1994)  
"Neuroendocrinology: an integrated approach" by D. Lovejoy (2005)  
"Handbook of Neurochemistry and Molecular Neurobiology" by J.Blaustein, A. Lajtha (2006).  
"Handbook of Neuroendocrinology" G. Fink, D. Pfaff, J.Levine Eds, AP (2012)  
In addition, chapters relevant to specific lectures or block of lectures will be indicated by individual lecturers and supplemental lecture material might be provided at the time of the lecture.

**Course coordinator:** Dr Claire-Dominique Walker, Dept of Anatomy and Cell Biology, McGill University  
e-mail: [claire-dominique.walker@mcgill.ca](mailto:claire-dominique.walker@mcgill.ca)

**Course teaching assistant:** Ms Jiamin Song [jiamin.song@mail.mcgill.ca](mailto:jiamin.song@mail.mcgill.ca)

**Assessments:**

**Midterm exam** is on **February 13th, 2024 (6-7:30PM, M1)**. The midterm is worth 40% of the final mark. The midterm exam will include material covered from January 4<sup>th</sup>-February 8<sup>th</sup> inclusively. In case students miss the regular in-class scheduled midterm, they have the option to take a deferred exam as per departmental policies below. Note that the midterm is planned to be in person. *The exam will be held in person if the public health situation at the time permits this; if not, the exam will be delivered remotely.*

The regular final exam, and any special final exams if necessary, will be scheduled during the final exam session period in April, 2024. The final exam will be worth 50% of the final grade and will include material covered from February 15<sup>th</sup> to April 9<sup>th</sup>. Note that the final exam is planned to be in person. *The exam will be held in person if the public health situation at the time permits this; if not, the exam will be delivered remotely.*

The format of both exams will consist of a combination of multiple choice questions and short essay questions.

**Quizzes:** There will be 3 announced quizzes that will consist of 10 MCQ each. The format of the MCQ will be similar to the one that will be used in the midterm and final exams as to practice the students for the exams. The total of the quizzes will count for 10% of the final grade (3.33% each). If absent, the quizzes cannot be deferred. You cannot miss more than one quiz without being penalized (0 on the missed quiz). Quizzes will be offered remotely during a specific time (i.e. 7PM) on the day the quiz is scheduled. Students will be informed in advance about the time that they will have access to the quiz.

**University Policies**

**Language of Submission:** In accord with McGill University's [Charter of Student Rights](#), students in this course have the right to submit in English or in French any written work that is to be graded.

Conformément à [la Charte des droits de l'étudiant](#) de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté.

**Academic Integrity:** McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/integrity/> for more information). This is particularly important for all online exams and assessments. All suspected cases will be transmitted and investigated by the Office of Disciplinary Measures of the University.

L'Université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le [guide pour l'honnêteté académique de McGill](#)). Ceci est particulièrement important pour tous les examens en ligne et les quiz. Tous les cas suspects seront référés pour investigation au Bureau des mesures Disciplinaires de l'Université.

**Code of Conduct:** The University is committed to maintaining teaching and learning spaces that are respectful and inclusive for all. To this end, offensive, violent, or harmful language arising in course contexts may be cause for disciplinary action under the Article 10 of the Code of Student Conduct and Disciplinary Procedures and Section 2.7 of the Policy on Harassment, Sexual Harassment, and Discrimination Prohibited by Law.

### **Departmental Grading Policy**

The Department of Anatomy & Cell Biology will NOT revise/upgrade marks except on sound academic grounds. Once computed, the marks in this course will NOT be altered/increased arbitrarily. Decimal points will be "rounded off" as follows: if the final aggregate mark is computed to be 79.5%, the mark will be reported as 80% (an A-); a final aggregate mark of 79.4% will be reported as 79% (a B+). These marks are FINAL and non-negotiable.

### **Departmental Midterm Exam/In-Course Assessment Deferral Policy**

A midterm exam or other in-course assessment (i.e. quiz, assignment, paper, etc.) in a course administered by the Department of Anatomy & Cell Biology may only be deferred in the case of a **justified absence** due to serious illness or significant extenuating circumstances AND when **valid documentation** is received by the Course Coordinator within FIVE working days of the original midterm exam or due date.

If the deferral request is accepted by the Course Coordinator, students may be offered one or both of the accommodations below, depending on the grading structure of the course:

- a) Add the weight of the midterm exam/in-course assessment to the final exam or another course component
- b) Write a deferred midterm exam/submit a deferred assessment which will be scheduled/due within 10 days of the original midterm exam/due date

Due to the grading scheme in ANAT-322 only the option b) will be offered for a missed midterm.

### **University Policy on Reassessments and Rereads**

Please see the eCalendar for policies regarding reassessments of coursework and rereads of final exams: [www.mcgill.ca/study/university\\_regulations\\_and\\_resources/undergraduate/gi\\_final\\_examinations](http://www.mcgill.ca/study/university_regulations_and_resources/undergraduate/gi_final_examinations).

**Student evaluation of the course:** Students will be asked to participate in the evaluation of the course at the end of the semester by filling out the evaluation form online (Mercury). This is valued feedback for the course coordinator and instructors and allows them to continue improving the course and its content.

## Schedule of lectures (Winter 2024):

### **ANAT-322**

**SADB 2/36 4:00-5:30 PM**

(In person teaching or possibility to online teaching according to University instructions)

<b>January</b>	4	Course introduction (10min)	D. Walker
		Functional anatomy of the neuroendocrine system	T. Stroh
	9	Hypothalamus, pituitary gland & neuroendocrine regulation	T Stroh
	11	The magnocellular system, oxytocin, vasopressin	T. Stroh
	16	Oxytocin, pregnancy, lactation and the social brain	D. Walker
	18	Neuroendocrine control of reproduction I	D. Bernard
	23	Neuroendocrine control of reproduction II	D. Bernard
	25	Neuroendocrine control of reproduction III	D. Bernard
	30	Neuroendocrine control of reproduction IV	D. Bernard
		<b>QUIZ 1</b> (on line <b>Wed Jan 31</b> , 7PM)	
<b>February</b>	1	The adrenocortical axis	D. Walker
	6	Stress and glucocorticoids in the periphery and CNS	D. Walker
	8	Chronic stress and disease	D. Walker
	13	<b>No class MIDTERM EXAM (6-7:30PM, M1)</b>	
	15	Immune and neuroendocrine interactions I	D. Walker
	20	Stress and microbiome in pathology	D.Walker
	22	Hypothalamic control of food intake	M. Kokoeva
	27	Reward and plasticity in food intake	M. Kokoeva
	29	Brain stem circuits in energy balance control	P. Sabatini
	March 4 - March 8 <b>Spring break (no class)</b>		
<b>March</b>		<b>QUIZ 2</b> (on line <b>Mon March 11</b> , 7PM)	
	12	Regulation of growth hormone secretion	T. Stroh
	14	Somatostatin	T. Stroh
	19	Endocrine disruptors in neuroendocrinology I	T. Stroh
	21	Endocrine disruptors in neuroendocrinology II	T. Stroh
	26	Circadian rhythms and neuroendocrine regulation I	N.Cermakian
	28	Circadian rhythms and neuroendocrine regulation II	N.Cermakian
<b>April</b>	2	Neuroendocrine systems and Seasonal regulation	F. Storch
		<b>QUIZ 3</b> (on line <b>Wed April 3rd</b> , 7PM)	
	4	Neuroendocrine control of the thyroid gland function I	M. Tamilia
	9	Neuroendocrine control of the thyroid gland function II	M. Tamilia
15-30	<b>FINAL EXAM (regular exam session)</b>		