COLLEGE OF SCIENCE
Department of Biological Sciences

Spring Semester 2025
SYLLABUS - ENDOCRINOLOGY
BIOL 4110 and 5110

Department of	Biological Sciences
Instructor Name	Dr. Anastasia Sacharidou
Office Location	Science Research Building #240
Email Address	Anastasia.sacharidou@unt.edu
Office Hours	Monday 11-2 pm
Virtual Office Hours	Monday 11-2 (only by appointment)
Course Format/Structure	In-person
Classroom Location	Life A419
Class Meeting Days & Times	Monday / Wednesday/ Friday – 10:00 – 10:50
Course Catalog Description	This course covers basic concepts of Endocrinology, including principles of hormone synthesis, metabolism and action, and associated disorders.
Prerequisites	Students must complete a Biology Foundation course and one semester of Biochemistry. If a student has not completed these courses but still wishes to attend the class, consent from the instructor is required.
Recommended Text and other material	Course material will be amassed from book chapters, review articles, scientific literature and expertise of the instructor. Course material will be made available through CANVAS, or students will be given references to download their own material. There is no required textbook but we recommend the use of the following textbooks: Endocrinology, by Hadley and Mac E. Publisher Englewood Cliffs, NJ: Prentice Hall, Identifier: endocrinology0000hadl, **ISBN: 0133179265**, Lccn: 95010773 Goodman's Basic Medical Endocrinology by Elizabeth H Holt, Beatrice Lupsa, Grace S Lee, Hanan Bassyouni, Harry E Peery, 2021, Elsevier, ISBN: 9780128158449 OR eBook ISBN: 9780128203347, 9780128158456

	In addition, students may consider the use of one of the following freely downloadable textbooks from the National Library of Medicine (NCBI): Endocrinology – An Integrated Approach, by Stephen Nussey and Saffron Whitehead, Oxford BIOS Scientific Publishers; 2001, **ISBN-10: 1-85996-252-1** https://www.ncbi.nlm.nih.gov/books/NBK22/ Application of Systematic Review Methods in an Overall Strategy for Evaluating Low-Dose Toxicity from Endocrine Active Chemicals, by National Academies of Sciences, Engineering and Medicine, Division on Earth and Life Studies, Board on Environmental Studies and Toxicology; Committee on Endocrine-related Low-Dose Toxicity; National Academies Press, 2017, **ISBN-13:978-0-309-45862-7** **https://www.ncbi.nlm.nih.gov/books/NBK453253/**
Access to Learning Resources	**UNT Learning Center** Phone: 940-369-7006 Website URL: https://learningcenter.unt.edu/about-learning-center/index.html **UNT Library:** Phone: 940-565-2411 (1-887-872-0264) Website URL: https://library.unt.edu/ **UNT Bookstore** Email: https://unt.bncollege.com/
Website Resources: **Canvas**	https://unt.instructure.com/ (CANVAS) is the official web portal for this course. It will be used for several key functions, including: • Gradebook management • Assignment of required course homework • Course Exams • Submission of digital assignments • Updates to syllabus, lecture material • Official communications deemed necessary by the instructor

Supported Devices: • iPhone • Android • Chromebook *Note: Tablet users can use the Canvas app*	**Getting Help with Canvas:** **Canvas 24/7 Phone Support for Students: 1-833-668-8634** **Canvas Help Resources:** **Canvas Student Guide - https://community.canvaslms.com/docs/DOC-10701** For additional assistance, contact Student Assistance Phone: 940-369-7394 Email: https://lms.unt.edu/resources/index.html **If you are working with Canvas 24/7 Support to resolve a technical issue, please keep me updated on your progress in troubleshooting.** **If you have a course-related issue (e.g., course content, assignment trouble, quiz difficulties), please contact me during office hours or by email.**

Description:

This course is designed to provide a broad overview of vertebrate endocrinology. Course topics will include the various classes of hormones, sources of hormones, production and synthesis of hormones, receptors and target tissues, mechanisms of action and regulation, and methods used in endocrinology. Lectures and readings from the suggested primary textbook will focus on classical endocrine systems.

Learning Objectives:

Upon completion of this course students should be capable of effectively communicating how endocrine systems function. Students should develop the ability to integrate across multiple endocrine systems to understand the complexity of endocrine-related disorders better. Students should also be capable of critically evaluating information provided by the media and other literature on the topic.

Class Format:

The class will consist of lectures, discussions, special topic assignments, and examinations. The instructor may change the format of the class at their discretion.

Lect	Date	Topic	Primary Reference
1	01/13	Course Introduction/ Overview	
2	01/15	Introduction to Endocrinology #2: Hormones and Homeostasis (examples)	Chapter 1
3	01/17	Introduction to Endocrinology #3: Vertebrate Endocrine System	Chapter 2
4	01/22	Introduction to Endocrinology #4: Vertebrate Endocrine System	Chapter 2
5	01/25	Introduction to Endocrinology #5: Receptors and Hormone Action	Chapter 3
6	01/29	Introduction to Endocrinology #6: Methods & Systems to study Hormones	Chapter 4
7	01/31	**EXAM #1: Introduction to Endocrinology**	
8	02/03	Glands #1: Brain/Hypothalamus	Chapter 6/7
9	02/05	Glands #1: Brain/Hypothalamus	Chapter 6/7
10	02/07	Glands #1: Brain/Hypothalamus/ Pineal	Chapter 6/7
11	02/10	Glands #2: Pineal	Chapter 20
12	**02/12**	**Glands #2: Discussion – Special Topic #1**	**Group 1**
13	02/14	**EXAM #2: Brain/Hypothalamus/ Pineal**	
14	02/17	Glands #3: Pituitary	Chapters 5 & 7 & 12
15	02/19	Glands #3: Pituitary	Chapters 5 & 7 & 12
16	02/21	Glands #3: Pituitary	Chapters 5 & 7 & 12
17	02/24	Glands #3: Pituitary	Chapters 5 & 7 & 12
18	**02/26**	**Glands #3: Discussion – Special Topic #2**	**Group 2**

18	**02/28**	**EXAM #3: Pituitary** **Due Date for Graduate Students Paper #1**	
20	03/03	Glands #4: Thyroid/Parathyroids	Chapters 13 & 9
21	03/05	Glands #4: Thyroid/Parathyroids	Chapters 13 & 9
22	03/07	Glands #4: Thyroid/Parathyroids	Chapters 13 & 9
23	03/17	Glands #4: Thyroid/Parathyroids	Chapters 13 & 9
24	**03/19**	**Glands #4: Discussion – Special Topic #3**	**Group 3**
25	**03/21**	**EXAM #4: Thyroid/Parathyroids**	
26	03/24	Glands #5: Pancreas/Peptides of the Gut	Chapters 10 & 11
27	03/26	Glands #5: Pancreas/Peptides of the Gut	Chapters 10 & 11
28	03/28	Glands #5: Pancreas/Peptides of the Gut	Chapters 10 & 11
29	03/31	Glands #5: Pancreas/Peptides of the Gut	Chapters 10 & 11
30	**04/02**	**Glands #5: Discussion Special Topic #4**	**Group 4**
31	**04/04**	**EXAM #5: Pancreas/Peptides of the Gut**	
32	04/07	Glands #6: Adrenals	Chapter 15
33	04/09	Glands #6: Adrenals	Chapter 15
34	04/11	Glands #6: Adrenals	Chapter 15
35	04/14	Glands #6: Adrenals	Chapter 15
36	**04/16**	**Glands #6: Discussion – Special Topic #5**	**Group 5**
37	**04/18**	**EXAM #6: Adrenal Glands**	

38	04/21	Glands #7: Male Reproductive Organs	Chapter 17
39	04/23	Glands #7: Male Reproductive Organs	Chapter 17
40	04/25	Glands #7: Female Reproductive Organs	Chapters 18 & 19
41	04/28	Glands #7: Female Reproductive Organs	Chapters 18 & 19
42	04/30	Pre-Finals Day – no class	
43	**TBD**	**EXAM #7: Reproductive Organs** **Due Date for Graduate Students Paper #2**	

Course Outline:

There will be a total of 7 exams, each worth 100 points. Exams will have the format of short answer questions. Each student is required to obtain a blue book (UNT Bookstore $0.75) for each exam. If there are issues with the purchasing of blue books, please notify Dr. Sacharidou at least a week prior to the exam date so a solution can be given. Exams will be taken in person in class. No electronic devices are allowed during exams.

Additionally, 5 assigned readings will cover various "special topics" as indicated. Students will be organized into teams of 3 to 5 members, depending on class size. Each group will prepare a power point presentation to present the assigned reading on a special topic and initiate a discussion. All students are expected to actively participate in discussing the readings. Power PowerPoint presentation should be uploaded and shared with everyone on CANVAS by 5 pm the day before class. If there are difficulties with uploading/sharing the PowerPoint please contact Dr. Sacharidou as soon as possible so as a solution could be given on time.

Furthermore, graduate students enrolled in the course are required to write 2 literature review summary papers on topics related to "medical endocrinology." These topics can be of personal interest but must focus on aspects of endocrinology and receive approval from the instructor. If you cannot find a suitable paper, a topic may be assigned. The paper must be sourced from a scientific journal and be related to one of the topics covered in the course. To receive full credit, papers must be submitted by the assigned due date. Late submissions will only receive partial credit. Graduate students are encouraged to consult with the instructor early in the semester to discuss potential ideas.

This schedule is subject to change by the instructor. Any changes will be communicated through course announcements on CANVAS, in class, and in an updated syllabus.

Grade Distribution:

Undergraduate Students

- Class Attendance 20pts
- Presentation of special topic 40pts
- Discussion during special topics 40pts

- EXAM #1 100pts
- EXAM #2 100pts
- EXAM #3 100pts
- EXAM #4 100pts
- EXAM #5 100pts
- EXAM #6 100pts
- EXAM #7 100pts

Total 800 points

Graduate Students (additional coursework)

- Paper #1 (due by 02/28/25) 100pts
- Paper #2 (due by 05/05/25) 100pts

Total 1000 points

Grade Scale:

A	90 % or higher
B	80 – 89.99 %
C	70 – 79.99 %
D	60 – 69.99 %
F	below 60 %

Final grades are calculated based on the percentage of the total points earned. The instructor reserves the right to alter the grading scheme and apply a curve.

Attendance:

All students are responsible for all information and materials provided during class. Attendance is mandatory and, therefore, expected. Attendance will be recorded during each class.

Exams make-up policy:

Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies. See Policy Chapter 6 Faculty Affairs – Policy # 06.039 Student Attendance and Authorized Absences. (https://policy.unt.edu/policy/06-039)

Getting Help out of the classroom:

- **Office hours:**
  Walk-ins every Monday 11-2 pm. Dr. Sacharidou's office is located in SRB #240. Although not required, it is preferable to notify Dr. Sacharidou of your intention to visit during her office hours.
- **Email communication**
  I try very hard to respond to emails within 24 hours! If you do not hear from me within that time frame, please try resending your email or calling my office phone. In the event of high email volume, I may reply to you to acknowledge your message and give you a time frame for a full response.

Academic integrity:

The University (and the professors!) expects the highest standards of academic integrity. A description of the Code of Student Conduct and Discipline is in the student handbook and at: http://www.unt.edu/csrr/student_conduct.htm.
Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the UNT Dallas Academic Integrity Policy in the appropriate Catalog at http://dallascatalog.unt.edu.

Academic dishonesty includes but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor or tampering with the academic work of other students.
Plagiarism of any sort on any assignment or exam **WILL** result in a grade of zero for that assignment.

Important dates (registering, dropping, etc)**:**

http://registrar.unt.edu/registration/fall-registration-guide

Disabilities:

The Department of Biological Sciences complies with the Americans with Disabilities Act. If you qualify, please see the instructor by the 12th day of class for accommodation.
The University of North Texas makes reasonable academic accommodations for students with disabilities. Students seeking accommodations must first register with the Disabilities Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to the faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time; however, DSO notices of accommodation should be provided as early as possible during the semester to avoid any delays in implementation. Note that a student must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member before implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, see the Disability Services Office website at https://studentaffairs.unt.edu/office-disability-access/index.html

Prohibited Use of Generative AI (GenAI) Software

In this course, I want you to engage deeply with the materials and develop your critical thinking and writing skills. For this reason, the use of Generative AI (GenAI) tools like Claude, ChatGPT, and Gemini is not permitted. While these tools can be helpful in some contexts, they do not align with our goal of fostering your independent thinking. Using GenAI to complete any part of an assignment, exam, or coursework will be considered a violation of

academic integrity, as it prevents the development of your own skills, and will be addressed according to the Student Academic Integrity policy.

For this course, tools like Grammarly, predictive text, speech-to-text, and translation tools are considered forms of GenAI, as they blur authorship and are therefore not allowed. All work must be your own.

Disruptive Behavior in an Instructional Setting:

Students are expected to engage with the instructor and other students in this class in a respectful and civil manner at all times to promote a classroom environment that is conducive to teaching and learning. Students who engage in disruptive behavior will be directed to leave the classroom. A student who is directed to leave class due to disruptive behavior is not permitted to return to class until the student meets with a representative from the Dean of Students Office. It is the student's responsibility to meet with the Dean of Students before class meets again and to provide the instructor confirmation of the meeting. A student who is directed to leave class will be assigned an unexcused absence for that class period and any other classes the student misses as a result of not meeting with the Dean of Students. The student is responsible for material missed during all absences and the instructor is not responsible for providing missed material. In addition, the student will be assigned a failing grade for assignments, quizzes, or examinations missed and will not be allowed to make up the work.

The Code of Student's Rights, Responsibilities, and Conduct (Policy 7.001) describes disruption as the obstructing or interfering with university functions or activity, including any behavior that interferes with students, faculty, or staff access to an appropriate educational environment. Examples of disruptive behavior that may result in a student being directed to leave the classroom include but are not limited to: failure to comply with reasonable directives of University officials, action or combination of actions that unreasonably interfere with, hinder, obstruct, or prevent the right of others to freely participate, threatening, assaulting, or causing harm to oneself or to another, uttering any words or performing any acts that cause physical injury, or threaten any individual, or interfere with any individual's rightful actions, and harassment. You are encouraged to read the Code of Student's Rights, Responsibilities, and Conduct for more information related to behaviors that could be considered disruptive.