



## **BSC 522-01E REPRODUCTIVE PHYSIOLOGY (CRN: 21933)**

COURSE SYLLABUS: SPRING 2019

### **INSTRUCTOR INFORMATION**

Instructor: Izhar Khan  
Office Location: STC 215  
Office Hours: MTWR, 1-2 PM  
Office Phone: 903-468-3271  
Office Fax: 903-886-5988  
University Email Address: [izhar.khan@tamuc.edu](mailto:izhar.khan@tamuc.edu)  
Preferred Form of Communication: Email  
Communication Response Time: 24 hours

### **COURSE INFORMATION**

Materials – Textbooks, Readings, Supplementary Readings

Multiple sources of literature including books, review articles, and original research papers – no textbook required.

### **Course Description**

This graduate level course is designed for students interested in advancing their contemporary knowledge in reproductive physiology. In addition to exploring basic human reproductive physiology, the course includes current topics such as reproductive aging, hormone therapies, fertility studies and treatments, sexual behavior, and the latest issues related to pregnancy as well as contraception. The study of human reproductive physiology will be supplemented by review of primary research literature in alternative vertebrate models. Timely completion of all assignments, quizzes and exams is required in order to master the learning outcomes outlined below.

*The syllabus/schedule are subject to change.*

## **Student Learning Outcomes**

Upon completion of this course students will be able to:

1. Demonstrate an understanding of the biological fundamentals of the adult male and female reproductive systems, sexual differentiation, development, and procreation.
2. Explain the cellular and molecular mechanisms of how reproductive hormones are synthesized and secreted, and act by binding to their specific receptors on the target cells.
3. Apply the knowledge of reproductive physiology by solving novel case studies on various disorders of the adult male and female reproductive systems.
4. Explore various special topics in human reproductive biology including, but not limited to, brain sex and sexually transmitted diseases.
5. Apply the knowledge of endocrine systems to understand contemporary issues in the field such as contraception, endocrine disruption, steroid abuse, and obesity.
6. Interpret, summarize, and present important research findings in reproductive physiology and reproductive endocrinology, including research using alternative vertebrate models.

## **COURSE REQUIREMENTS**

### **Minimal Technical Skills Needed**

- Proficiency in using the D2L Brightspace Learning Management System in myLeo Online
- Microsoft Word, Excel, and PowerPoint
- Other relevant graphics programs for preparing effective PowerPoint presentations

### **Instructional Methods**

Formal lectures will be supplemented with appropriate audiovisual materials, at home problems, laboratory exercises and discussions. PowerPoint of all lectures will be available for you in the course website in Learning Management System (D2L Brightspace) in myLEO Online at <https://leo.tamuc.edu/> or sent as e-mail attachments to the students in case of any issues with D2L. I will post announcements on the home page of the course for reminders of important due dates in addition to announcing them in the class. Progress in the class can be monitored in the course webpage in D2L Brightspace.

### **Student Responsibilities or Tips for Success in the Course**

- Dedicated study time each week to go over the materials covered in the class and the information in selected original research papers and review articles
- Submitting assignments before deadlines
- Regularly checking both myLEO Online (D2L) and emails for course related announcements
- Prepare effective research presentations and lead discussions of selected original research papers related to the topic(s) being covered in the class each week

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## GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

## Assessments

Quizzes = 50 points

Research paper discussion = 50 points

Two Term Exams – 200 points

Comprehensive Final Exam = 100 points

**Total = 400 points (100%).**

## TECHNOLOGY REQUIREMENTS

### LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

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**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

### Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

### Interaction with Instructor Statement

**The instructor's communication response time and feedback on assessments are stated clearly.**

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Procedures/Policies

**Assignments:** The assignments will consist of review of a selected research paper each week and participation in the discussion of that paper in the class. In addition, each student will write a research paper providing a brief overview of a research topic within endocrine toxicology and discuss.

**Exams:** Consist of a mix of multiple choice and short answer type questions. and will be taken in the class. The term exam will be taken in class and the final exam will follow the university exam schedule.

**Attendance and Absences:** You are expected to attend ALL scheduled lectures and take the exams as scheduled. You will be held responsible for all information covered in lectures and research paper discussions.

**Makeup Policy:** The student is responsible for requesting a makeup when they are unable to attend the regularly scheduled examination and must schedule the makeup within 2 days of the absence. Makeup exams will be scheduled only in the event of an EXCUSED absence (as defined in the Student's Guidebook). If the test is not made-up, the student will receive a zero for that exam.

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## **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

## **University Specific Procedures**

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

### **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

### **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

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## **Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

## **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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## COURSE OUTLINE / CALENDAR

Week 1	Jan 15 <sup>th</sup> & 17 <sup>th</sup>	01_Endocrinology, Brain and Pituitary Gland
Week 2	Jan 22 <sup>rd</sup> & 24 <sup>th</sup>	02_Female Reproductive System
Week 3	Jan 29 <sup>th</sup> & 31 <sup>st</sup> <b>Tue, Jan 29<sup>th</sup></b>	03_Menstrual Cycle <b>Quiz 1 (Lecture Files 01 &amp; 02)</b>
Week 4	Feb 5 <sup>th</sup> – 7 <sup>th</sup>	04_Male Reproductive System
Week 5	Feb 12 <sup>th</sup> & 14 <sup>th</sup> <b>Tue, Feb 12<sup>th</sup></b>	05_Reproductive Hormones and their Mechanisms of Action <b>Exam 1 (Lecture Files 01 – 05)</b>
Week 6	Feb 19 <sup>th</sup> & 21 <sup>st</sup> <b>Tue, Feb 19<sup>th</sup></b>	06_Sexual Differentiation <b>Quiz 2 (Lecture File 06)</b>
Week 7	Feb 26 <sup>th</sup> & 28 <sup>th</sup>	07_Puberty
Week 8	Mar 5 <sup>th</sup> & 7 <sup>th</sup>	08_Reproductive Aging
Week 9	Mar 12 <sup>th</sup> & 14 <sup>th</sup> <b>Tue, Mar 12<sup>th</sup></b>	09_Human Sexual Response <b>Quiz 3 (Lecture File 09)</b>
<b>Week 10</b>	<b>Mar 18<sup>th</sup> – 22<sup>nd</sup></b>	<b>Spring Break</b>
Week 11	Mar 26 <sup>th</sup> & 28 <sup>th</sup> <b>Tue, Mar 26<sup>th</sup></b>	10_Gamete Transport and Fertilization <b>Exam 2 (Lecture Files 06 – 10)</b>
Week 12	Apr 2 <sup>nd</sup> & 4 <sup>th</sup>	11_Pregnancy

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Week 13	Apr 9 <sup>th</sup> & 11 <sup>th</sup> <b>Apr 14<sup>th</sup> &amp; 15<sup>th</sup></b>	12_Labor and Birth <b>Quiz 4 (Lecture Files 11 &amp; 12)</b>
Week 14	Apr 16 <sup>th</sup> & 18 <sup>th</sup>	13_Contraception
Week 15	Apr 23 <sup>rd</sup> & 25 <sup>th</sup> <b>Apr 28<sup>th</sup> &amp; 29<sup>th</sup></b>	14_Infertility <b>Quiz 5 (Lecture Files 13 &amp; 14)</b>
Week 16	Apr 30 <sup>th</sup> & May 2 <sup>nd</sup>	15_Sexually Transmitted Diseases

**Final Exam: Thursday, May 9<sup>th</sup>: 50% Cumulative + 50% from Lecture files 11 – 15**

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