

Revised COURSE SYLLABUS
Christopher Brown, Professor

PCB 4805 - ENDOCRINOLOGY
FALL 2005

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Classroom: ZEB 110

Class meets Monday and Wednesday 0930-10:45

In Academic 1 room 231

Office hours 9.00-11.00 Tuesdays (at BBC office) **by appointment**

OVERVIEW

This course will introduce the field of endocrinology, using a comparative approach to the regulation and integration of physiological function in animals, from the molecular to the whole-organism level. We will begin with an overview of the different categories of hormones and the organization of the endocrine system. Cellular mechanisms, the integration of neural and humoral regulation, and the evolution of endocrine systems will be among the subjects emphasized in this course. The general approach will be to consider both animal and clinical perspectives. Students in the past whose interests have been exclusively human, such as certain premedical students, have found the evolutionary approach to endocrine systems helpful in gaining a thorough understanding of how these regulatory processes work.

The second half of the semester will include both lectures and student-led discussions. At the time of the mid-term examination (Date tba) a schedule will be made up for student class presentations. Depending on the number of students enrolled, these will begin on or around Mid October and continue until the last day of classes. Students with particular interests, relevant professional goals, or research activities underway can request a special topic prior to the midterm date.

Required textbook and other resources:

Norris, D.O. 1997. Vertebrate endocrinology. 3rd edition. Academic Press, San Diego

This course requires a hefty amount of reading, and course content is drawn both from lecture and the text. Students are strongly advised to keep up with the reading assignments.

A significant number of endocrinology texts will be placed on reserve in the library, and readings will be supplemented with handouts, reprints, online reading, or other materials either distributed or placed on reserve. In each case, the class will be advised as to whether reserve materials are required or optional.

All students are asked at the outset of the course to be on the lookout for stories in the news (radio, TV, printed press) on endocrine matters. Plan to share these with the class as they arise.

GRADES

Midterm 25%

Final exam 40%

Quizzes (2) 10% each

Class presentation 10% - Each student will select or be assigned a current topic in endocrinology; you will each prepare a class presentation and handout, leading a class discussion on the assigned topic. These will last approximately 10 minutes. As an alternative, students may elect to set up a website on an appropriate topic.

Class participation 5% – Class discussions will be a meaningful part of this course, and all enrolled students are expected to be present, up to date in reading, and actively involved in discussions. Things happen and people will sometimes miss a class, but erratic attendance and/or lack of participation may cost you 5 points – perhaps as much as one overall letter grade.

Policy regarding the scope of the course, assignment of grades, etc.:

Endocrinology is viewed as a challenging course by most university students. The sheer volume of material to be learned can be intimidating, and because hormones integrate all sorts of cellular and physiological processes, it is reasonable to assume that the soundness of your general knowledge of biology and chemistry will be put to the test. Reading assignments will cover the course material, but students are expected to read additional sources as needed for perspective, clarity, and enlightenment.

Plan to attend every class! Classes are scheduled once a week, and attendance is mandatory. Attendance will be taken if the number of registered students and the number of students present in lecture seem unrelated. Because this is an upper-division course, it is assumed that each of you will keep up with reading assignments, and will be able to discuss the subject matter in an intelligent and informed fashion.

Exams and quizzes will test comprehension of endocrine concepts, including material covered in reading assignments, lectures, and class discussions. In anticipation of the questions, “Do we have to know that?” and “Will that be on the exam?”, the answer is yes. The format of exams will be structured in order to test the depth and accuracy of your comprehension. In other words it will not just consist of multiple choice.

☺ Be prepared to participate in the course as scheduled; ***make-up quizzes and tests and extra credit projects will not be available***. This is in boldface so that when somebody asks “when is the makeup exam?”, I will ask you to read this back to me. Missing a midterm or final exam is why they have Incompletes. The way to do well in this course is to stay on top of the material as it is assigned, and do additional reading if necessary in order to build an effective knowledge base. Grades will be fair.

Help. If the reading or lecture material are not making sense, or if you need additional assistance with the information presented in this course, seek the assistance of the professor. If the office hours on the Biscayne Bay Campus are inconvenient, other arrangements can be made.

Sexual Harassment Policy. The Faculty Senate voted to require each professor to include a statement about this in the syllabus. OK: sexual harassment is not permitted in this class. FIU's sexual harassment policy is available online:
<http://www.fiu.edu/~eop/EOPSexH.pdf>

Class Schedule, topic, reading assignment (chapter in Norris)

Week of August 29 Introduction Chapter 1

Overview of Endocrine research Chapter 3

September 5 research methods – sampling, measurement, and interpretation

September 12 Function of the hypothalamus and hypophysis Chapter 4

September 19 comparative biology of the hypothalamo-hypophysial system Chapter 5

September 26 Cellular action of hormones Chapter 2

QUIZ 1

October 3 Thyroid function, chapters 7 and 8, review Ch. 2 part III
Hormone actions and interactions

October 10 Guest lecturer Neuroendocrinology Chapter 6

October 17 Mammalian Reproduction Chapter 11.

October 24 Guest Lecture – Dr. Robert Dores

Midterm Exam Assignment of topics & scheduling of student presentations

October 31 Comparative Reproduction Chapter 12

Nov. 3 – last day to drop with a grade of DR

November 7 Adrenal function Chapters 9, 10

Hormones in hydromineral homeostasis Chapter 15

November 14 Digestive & metabolic hormones Chapter 13

QUIZ 2

November 21 **STUDENT SYMPOSIUM**
student presentations 1- 7

November 24, 25 No class – study turkey digestive processes

November 28 **STUDENT SYMPOSIUM**
student presentations 8- 25 last class

December 5 Last classes; tying together loose ends

December 12-17 (schedule TBA) **Final Examination**

December 21 Grades available to students by email, web and at kiosks.