

UNIVERSITY OF CALGARY  
DEPARTMENT OF BIOLOGICAL SCIENCES  
COURSE OUTLINE

1. Course: **ZOOLOGY 597 - PRINCIPLES OF ENDOCRINOLOGY**

Lecture Sections: **L01** **T R 9:30** **SA 124A** **Fall 2016**

Course Coordinator: Dr. Vijayan

Instructor(s): **Dr. M.M. Vijayan** **BI 488** **220-3094** [matt.vijayan@ucalgary.ca](mailto:matt.vijayan@ucalgary.ca)  
**Dr. C. Shemanko** **BI 238C** **220-3861** [shemanko@ucalgary.ca](mailto:shemanko@ucalgary.ca)

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2. **PREREQUISITES: Zoology 463**

See section 3.5.C in the Faculty of Science section of the online Calendar  
(<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>)

3. **GRADING:** The University policy on grading and related matters is described in “Academic Regulations, sections F.1 and F.2” of the online University Calendar (<http://www.ucalgary.ca/pubs/calendar/current/f-1.html> and <http://www.ucalgary.ca/pubs/calendar/current/f-2.html>) In determining the overall grade in the course the following weights will be used:

<b>Midterm Exam</b>	<b>50 %</b>	<b>In-Class</b>	<b>October 27, 2016</b>
<b>Final Exam</b>	<b>50 %</b>		

“Each piece of work (midterm test or final examination) submitted by the student will be assigned a percentage score. The student’s average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

4. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in section 3.6: <http://www.ucalgary.ca/pubs/calendar/current/sc-3-6.html>. It is the student's responsibility to familiarize himself/herself with these regulations. See also <http://www.ucalgary.ca/pubs/calendar/current/e-3.html>.

5. Dates and times of class exercises held outside of class hours: N/A

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **EXAMINATION POLICY:** No electronic or written aids (eg. cell phones, tablets, computers, notes, textbooks) will be allowed during writing of any exams. Non-programmable calculators will be permitted to answer quantitative questions on exams, if applicable, and permission to do this will be clearly indicated on the examination paper. Students should also read the Calendar, Section G, on Examinations: <http://www.ucalgary.ca/pubs/calendar/current/g.html>."

Department Approval ORIGINAL SIGNED

Date \_\_\_\_\_

## 7. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **ACADEMIC MISCONDUCT (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under K. Student Misconduct (<http://www.ucalgary.ca/pubs/calendar/current/k.html>) to inform yourself of definitions, processes and penalties**
- (b) **ASSEMBLY POINTS in case of emergency during class time. Be sure to FAMILIARIZE YOURSELF with the information at <http://www.ucalgary.ca/emergencyplan/assemblypoints>.**
- (c) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf).
- Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Biological Sciences, Dr. H. Addy by email [addy@ucalgary.ca](mailto:addy@ucalgary.ca) or phone 403 220-3140.
- (d) **SAFEWALK:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call **220-5333** for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **FREEDOM OF INFORMATION AND PRIVACY:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, **students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page.** For more information see also <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **Student Union Information:** [VP Academic](#) Phone: 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca).  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca); [Student Ombudsman](#)
- (g) **INTERNET and ELECTRONIC COMMUNICATION DEVICE Information.** You can assume that in all classes that you attend, **your cell phone should be turned off.** Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

### Grade scale:

91 A+; 87 A; 83 A-; 79 B+; 75B; 71 B-; 67 C+; 63 C; 59 C-; 55 D+; 50 D; below 50 F

This course is designed to provide coverage of the principles of modern endocrinology and to prepare students for graduate courses on more advanced topics in endocrinology. Lectures will include examples to emphasize comparative aspects. It is assumed that the student has knowledge of basic endocrinology from previous physiology and biochemistry courses.

## ZOOLOGY 597 SCHEDULE, 2016

**Lec**      **Date**                      **Lecture Title**

### ***Mechanisms of Hormone action (M.M. Vijayan)***

1	Tuesday	Sep	13	Introduction
2	Thursday	Sep	15	Hormone-receptor interactions
3	Tuesday	Sep	20	Signal Transduction: Membrane receptors
5	Tuesday	Sep	22	Signal Transduction: Nuclear receptor
4	Thursday	Sep	27	Advance Methods in Endocrinology
6	Thursday	Sep	29	Advance Methods in Endocrinology

### ***Hormonal control of growth, reproduction and differentiation (M.M. Vijayan)***

7	Tuesday	Oct	4	Hypothalamic hormones
8	Thursday	Oct	6	Pituitary hormones
10	Tuesday	Oct	11	Endocrine control of growth and differentiation
9	Thursday	Oct	13	Endocrine control of growth and differentiation
11	Tuesday	Oct	18	Male and female reproduction
12	Thursday	Oct	20	Male and female reproduction
13	Tuesday	Oct	25	Gonadal function

**Thursday      Oct    27    MID-TERM EXAM (50%; 9-30 a.m. – 10:45 p.m. Lec 1-13)**

### ***Growth factors and control of development (C.S. Shemanko)***

17	Tuesday	Nov	1	Growth Factors and
18	Thursday	Nov	3	endocrine control of development
19	Tuesday	Nov	8	during prenatal, postnatal,
20	Tuesday	Nov	15	pubertal, and pregnancy

### ***Integrated control of intermediary metabolism (M.M. Vijayan)***

16	Thursday	Nov	17	Adrenal Endocrinology
17	Tuesday	Nov	22	Adrenal Endocrinology
18	Thursday	Nov	24	Stress Endocrinology
19	Tuesday	Nov	29	Endocrine disruption-stress
20	Thursday	Dec	1	Hormonal control of metabolism
21	Tuesday	Dec	6	Hormonal control of metabolism
22	Thursday	Dec	8	Hormonal control of metabolism

**FINAL EXAMINATION (50%; will be scheduled by the Registrar. Lec 1-22)**

Lecture duration                      75 minutes (9:30 – 10:45 am.)