

## **CLIN\*6440**

**Title: Graduate Pharmacology W12 [0.50]**

**Coordinators – M. Sinclair, A. Valverde**

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This course focuses on review of pharmacologic principles and application to relevant anesthetic agents at the graduate level for board certification.

The course will provide the student with the opportunity to individually fully research the pharmacologic principles of 2 classes of anesthetic agents. The student will present a power point presentation to the group. A reference list for the presentation information is required.

### **1. Course Objectives:**

- 1) To review pharmacological principles and applications
- 2) To review anesthetic/analgesic agents and related drugs according to
  - a. Pharmacokinetics and pharmacodynamics
  - b. Clinical use
  - c. Current veterinary publications

### **2. Material to be covered:**

Graduate students will be *assigned* two topics to organize and present. All graduate students enrolled *and auditing* the course will be expected to do a presentation. Faculty members will also present topics and attend sessions to provide feedback and enrich topic discussion.

Pharmacological groups:

Benzodiazepines	Phenothiazines and Butyrophenones
Opioids	Phencyclidines
Barbiturates	Anticholinergics
Non-barbiturates (propofol, etomidate, alfaxalone)	Guaifenesin
Alpha <sub>2</sub> -agonists	Local anesthetics
Non-depolarizing and depolarizing muscle relaxants	Non-steroidal anti-inflammatories

### **3. Suggested references:**

Texts:

- 1) Stoelting RK and Hillier SC. *Pharmacology and Physiology in Anesthetic Practice* 4<sup>th</sup> Edition, 2006, Lippincott Williams and Wilkins.
- 2) Booth DM. *Small Animal Clinical Pharmacology and Therapeutics*, 2<sup>nd</sup> Edition, 2011, WB Saunders and CO.
- 3) Muir WM, *Equine Anesthesia* 2<sup>nd</sup> edition, 2009, Saunders, Elsevier, Chapter 9. Principles of Drug Disposition and Drug Interaction in Horses. pp. 171-184.

4) Lumb and Jones – Select Chapters

5) Millers Anesthesia and Barash Clinical Anesthesia – Select Chapters

Current Journal articles

**4. Grading:**

40% - Graduate seminars will be evaluated on presentation, accuracy, and knowledge. Weekly participation and preparation on other topics will also be noted.

60% - Final written examination (*date to be announced*)

**5. Method of Course Presentation:**

The format of the course will be weekly. Presentations are on Fridays from 7:30-9:00 am or 7am-8:30 am if necessary. Graduate students will be *assigned* topics to organize and present. All graduate students enrolled *and auditing* the course will be expected to do a presentation. Faculty members will also present topics and attend sessions to provide feedback and enrich discussions. References used for the presentation, including current and or historic articles are required with the power point presentation.

***Pharmacology Course Schedule***

<b>Date</b>	<b>Topic</b>	<b>Presenter</b>	<b>Clin Studies Room</b>
January 10 <sup>th</sup>	Pharmacology	A. Valverde	2152
January 17 <sup>th</sup>	Pharmacology continued	A. Valverde	2152
Jan 24 <sup>th</sup>	Benzodiazepines	M. Sinclair	2152
Jan 31 <sup>st</sup>	Alpha <sub>2</sub> -agonists and antagonists	M. Sinclair	2152
Feb 7 <sup>th</sup>	Local Anesthetics	A. Valverde	2152
Feb 14 <sup>th</sup>	Phenothiazines, Butyrophenones	C. Mosley / M. Sinclair	2152
Feb 21 <sup>st</sup>	Anticholinergics	M. Sinclair	2152
Feb 28 <sup>th</sup>	Pharmacology continued	R. Johnson	2152
March 7 <sup>th</sup>	Pharmacology continued	R. Johnson	2152
Mar 14 <sup>th</sup>	Opioids	A. Sanchez	2152
March 21 <sup>st</sup>	Non-Barbiturate induction agents (Etomidate, Alfaxalone, Propofol)	B. Liao	2152
March 28 <sup>th</sup>	Barbiturate induction agents and Ketamine	C. Mosley	2152
April 4 <sup>th</sup>	Inhalants	A. Sanchez	2152
April 11 <sup>th</sup>	Muscle relaxants and Guaifenesin	B. Liao	2152
April 25 <sup>th</sup>	NSAID's	C. Mosley	2152

### E-mail Communication

All students are required to check their University of Guelph e-mail account regularly. E-mail is the official route of communication between the University and its students.

### When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course in writing, with your name, id#, and e-mail contact. See the graduate calendar for information on regulations and procedures for Academic Consideration:

[http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec\\_d0e1415.shtml](http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1415.shtml)

### Drop Date

The last date to drop one-semester courses, without academic penalty, is Friday, March 7. Two-semester courses must be dropped by the last day of the add period in the second semester. Refer to the Graduate Calendar for the Schedule of Dates.

### Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. The Academic Misconduct Policy is detailed in the Graduate Calendar:

[http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec\\_d0e1702.shtml](http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1702.shtml)

### Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

### Resources

The Graduate Calendar is the source of information about the University of Guelph's procedures, policies and regulations that apply to graduate programs:

<http://www.uoguelph.ca/registrar/calendars/graduate/current/>