

Syllabus for: Senior Seminar in Basic Research Leading to Drug Discovery in HIV treatment or prevention

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Office hours: Monday, 3-4 or by appointment Tuesday afternoon.

Readings include primary literature and review articles and will be available online.

Course format: The goal of this course is to teach students to read and evaluate primary literature. This course uses two primary formats to achieve this goal.

- 1) At the beginning of the semester, each Thursday meeting will consist of a discussion of one or more research article addressing a major discovery leading to HIV therapeutic or prevention. Each Tuesday meeting will consist of a discussion of one or more review articles or techniques introducing a topic or approach for the following Tuesday.
- 2) In the second half of the semester, Tuesday meetings continue in the same format. Thursday meetings will consist of student presentations outlining the development of a single therapy or approach to overcome a challenge in HIV drug discovery. Presentations are based on outside research each student performs independently.

Grades are based on presentations (25%), questions sets (25%), participation (25%) and two exams (25%). Students are required to meet with the instructor prior to their presentations. Presentations will be evaluated based on accuracy as well as clarity. Each student in the class is expected to read the research article and answer a question set. Homework assignments are due prior to the corresponding discussion. Homework assignments are evaluated based on accuracy and clarity. Students can resubmit homework assignments for regrade of up to ½ the points within 2 weeks of a returned homework. Exams are essay format and are open note. Exam answers will be evaluated based on accuracy as well as clarity.

<u>Date</u>	<u>Topics</u>	<u>Reading</u>
Week 1 Jan 12/14	How to read a research article Review of cell and viral biology	TBD
Week 2 Jan19/23	Effective presentations skills Introduction to HIV biology	TBD
Week 3 Jan26/29	Nucleotide reverse transcriptase inhibitors	TBD
Week 4 Feb2/4	Nucleoside reverse transcriptase inhibitors	TBD
Week 5 Feb9/11	Nucleoside reverse transcriptase inhibitors-2	TBD
Week 6 Feb16/18	Non-Nucleoside reverse transcriptase inhibitors	TBD
Week 7 Feb23/25	Integrase inhibitors/ Mid-term exam	TBD

Week 8 Mar 2/4	Protease inhibitors	TBD
Week 9 Mar 9/11	Spring break	
Week 10 Mar 16/18	Student presentations Entry inhibitors	TBD
Week 11 Mar 23/25	Student presentations Entry inhibitors 2	TBD
Week 12 Mar 30/April 1	Student presentations The problems with vaccines	TBD
Week 13 April 6/8	Student presentations The problems with vaccines	TBD
Week 14 April 13/15	Student presentations Promising directions 1	TBD
Week 15 April 20/22	Student presentations Promising directions 2	
Week 16 April 27	Wrap up and final discussion	
	Final exam	

Appendix 1: Grading rubric for presentations

Oral presentation Rubric		Needs work (65% \times points)	Acceptable (75% \times points)	Good (85% \times points)	Excellent (95% \times points)	Superior (100% \times points)	pts
Organization							
10	Information logically introduced and explained						
10	The topic's connection to the broad topic of the course is clearly explained						
Content							
10	Presentation provides pertinent information						
10	Information presented is factually correct						
Slides							
5	Slide titles are appropriate for slide content						
10	Information in slide is						

	clearly presented						
Presentation							
5	Meets time specification						
10	Spoken information is clear						
70							

Appendix 2:

Grading rubric for participation: Points are assigned to a maximum of 1 for each day. Points come from (1) answers to questions, (2) whether it looks like you are involved in the group activities and (3) points will be removed for disruptive activities (eg: sleeping, texting, playing games during class). If you attend and do not participate, no points are awarded for the day. If you do not attend, no points are awarded for the day. One or two classes missed will not affect your grade. If you miss enough class for it to matter, you need to have a doctor's note or other documentation of inability to attend class.