

BIO 447/547
VIROLOGY
Syllabus for Fall Semester 2018

Lecture Meeting Time: T/R 9:30-10:45 AM TLC 47

Instructor: Dr. Lee Fortunato
LSS Rm 147 (office)/ Gibb Hall Rm 125/6 (lab)
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office hours: By appointment

Recommended Textbook: Principles of Virology Fourth Edition by Flint, Enquist, Racaniello and Skalka- ASM Press copyright 2015 – this is a two-volume set. You can probably pick it up quite inexpensively now as a used set on Amazon (last check - \$75!!). These are excellent reference texts, although they are a bit dense. I will be distilling these down for you during lectures.

Grading for the class:

- a) Your final grade will primarily be determined by your performance on four exams:
Midterm #1 (Sept. 11th- in class) 20% (undergrads) 15% (grad students)
Midterm #2 (Oct. 4th – in class) 20% (undergrads) 15% (grad students)
Midterm #3 (Oct 30th – in class) 20% for everyone
Final Exam (Nov. 29th – in class) 30% for everyone

The exams will be primarily short answer/essay type exams that will be designed to test your comprehension/understanding of the basics that we cover in class. I will provide practice exam questions and answers so that you will be able to prepare for this style of exam. Please let me know **AT LEAST 1 WEEK PRIOR** to a scheduled exam if you have a conflict with the time. I will be happy to arrange for you to take the exam at an alternate time. In addition, reasonable accommodations are available for students who have a documented disability. Please notify me during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through Disability Support Services in the Bruce Pitman Center, Room 127, phone # 885-6307.

All exams will be graded on a curve, with the mean of the scores being the middle of the B range. One half of one standard deviation above the mean is the dividing line between an A and a B; one half of one deviation below the mean divides a B and a C. One full deviation below that is the dividing line between a C and a D. I will give you your mid-semester grades so that you will be able to assess your situation accordingly.

- b) **10% of your grade** will be determined by attendance and participation in class. This year, I want to try to incorporate more active learning exercises, so it will be important to be ready to engage in group-discussions in class. This will include your participation in discussions during grad student presentations, which will happen the last week of the semester. In addition, after each presentation, you will work in groups to answer questions posed by the grad student presenters. Each group will answer one question at the end of the session.

c) For **grad students** in the class, **the final 10%** of your grade will be determined by your co-leading of one discussion section during class time. You will have the option of **EITHER** giving a presentation about **YOUR THESIS PROJECT and HOW IT RELATES TO THE MATERIAL WE HAVE COVERED OR YOU CAN LEAD A DISCUSSION OF A PAPER IN THE CURRENT VIROLOGY LITERATURE** (last 6 months). You will be graded on your grasp and presentation of the material, your ability to lead a discussion of the topic and your production of a set of handouts for the class. In addition, you must come up with discussion questions for the breakout groups. These presentations will take place on the last week of class (Dec. 4 and 6).

Tentative list of topics to be covered in class (the order may change):

Topic	Chapter (Volume #)
1. General background/History of virology	1 (I)
2. Methods of detection	2 (I)
3. Virus classifications (the Baltimore scheme)	1 (I)
4. Viral structure (capsids/envelopes/packaging)	4 (I)
5. Virus receptors and entry into the cell	5 (I)
6. Review of general molecular biology and overview of viral replication (co-opting the cellular machinery)	WWAMI notes
7. Assembly/maturation/release from the cell	12 + 13 (I)
8. Modes of transmission/patterns of infection	2(I) + 5(II)
9. General pathogenesis	2(I) + 5(II)
10. The host immune response/ viral subversion of the host system	3 + 4(II)
11. Vaccination and antiviral defenses	8 (II)
12. + strand RNA replication strategies	6 (I)
13. – strand RNA replication strategies	6 (I)
14. virus evolution, emerging viruses and interspecies transmission	10 + 11(II)
15. Retroviruses (general strategies) and HIV/AIDS	7(I) + 6(II)
16. Viral transformation (small DNA viruses) and oncogenesis	7 (II)
17. large DNA viruses (lessons from the herpesviruses)	WWAMI notes
18. viral vectors and gene therapy	WWAMI notes

Website: There is a BBlearn website set up for class (Biol 447-547 Virology). You should have all been added to the user list of this website. Please let me know if you have NOT been added.

This will have my slides as PDFs and the notes for each lecture. **I expect you to print these out and bring them to class with you (or load them onto your iPad/tablet).** It will also have PDFs of the papers the grad students will be presenting (if they choose this option) once they are selected. Lastly, it will have sample exam questions for the different topics we will cover. The list of topics above is not a gage of how long each topic will take. This will vary immensely, as I will not rush through the material just to keep to a timetable! I want you to understand what's going on, no matter how long it takes!

About cheating:

Don't do it..... if I catch you, you will fail the exam. If it happens again, you will fail the class.

END OF STORY.

About carrying firearms:

"The University of Idaho bans firearms from its property with only limited exceptions. One exception applies to persons who hold a valid Idaho enhanced concealed carry license, provided those firearms remain concealed at all times. If an enhanced concealed carry license holder's firearm is displayed, other than in necessary self-defense, it is a violation of University policy. Please contact local law enforcement (call 911) to report firearms on University property."