

Biology 490: Virology Syllabus

Class information will be posted on Desire2Learn (D2L).

Course Overview:

Times: Lectures: TNR 464 R 2:00-3:40 p.m.
Final Project: D2L Dropbox w/Turn-it-in, due Thursday May 18th by midnight

Instructor: Lindsay Dresang, Ph.D.
Office: TNR 235
Office hours: T/W @ 1:00 p.m., R @ 4:00 p.m., or by appointment
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Purpose and Goals: The field of virology is incredibly interdisciplinary. This field involves research in cellular and molecular biology, genetics, physiology, cancer biology, immunology, epidemiology, biochemistry, bioinformatics, biostatistics, and others. I have selected a wide range of topics *and* viral groups for discussion to reflect the diversity of this field. Upon reviewing these topics you should have a better understanding of what viruses are, how you become infected with them, and what diseases some of these viruses cause. You should also gain an equally important understanding of what viruses are NOT, routes that will NOT cause infection, and diseases WITHOUT a clear correlation or cause-and-effect relationship!

In addition to learning about virology, a major course goal is to strengthen your written and oral communication skills, specifically in the biological sciences. Most weeks you will read either one or two primary research articles, as indicated in the course schedule. You will be responsible for leading an interactive group discussion for one article. Additionally, you will research and present background information the week prior to this group discussion. Students not presenting a primary research article for that week will write a short summary with questions to be peer reviewed in class. Toward the start of the semester, you will provide a short demonstration on a randomly chosen virus, including a “popular science” summary of that virus. Finally, you will write a review article on a virology-related topic of your choosing due at the end of the semester. Assignment details/requirements are described in separate handouts.

Required Readings: We will start the semester by reading virology review articles, as well as some textbook excerpts on select properties of viruses. For the rest of the semester we will read and discuss several primary research articles on various topics in virology. These **required** readings will be posted on D2L.

Suggested Resources: While no textbook is required for this course, a useful grammatical reference is The Elements of Style by W. Strunk Jr. and E. B. White. This book is available **free** through the Gutenberg project (link posted on D2L). Another reference pertinent to scientific communication is A Short Guide to Writing About Biology, by Jan Pechenik (any edition will do). One copy is on reserve at the library for a 3-day checkout period. Two suggested references on viruses include Understanding Viruses, third edition by Teri Shors, and Virology: Molecular Biology and Pathogenesis, by Leonard Norkin. These textbooks are either currently on reserve at the library (again, for a 3-day period), or will be shortly. I also have an extra copy of the Shors text in my office.

Lectures: Most lectures will be conducted in a split discussion/review format. We will spend the latter part of class hearing background information on one or two viral topics in preparation for the following week. The beginning of lecture will include either one or two oral presentations on a primary research article(s) in virology, accompanied with group discussion. Students who are *not* presenting at the beginning of class will still be summarizing each article's findings, peer reviewing these findings, and revising these notes based on our discussions.

Course Requirements and Grading:

Letter Grades:

A = 100-93% A- = 92.9-90% B+ = 89.9-87% B = 86.9-83% B- = 82.9-80% C+ = 79.9-77%
 C = 76.9-73% C- = 72.9-70% D+ = 69.9-67% D = 66.9-60% F ≤ 59.9%

Point Distribution:

Article summary + Peer review	10 pts each x (12 - 2 [‡])	100 pts
Skipped upload	-2 pts each	
Background presentation		40 pts
Article presentation		40 pts
“Pop Science”		
Article		15 pts
Presentation		5 pts
Review article		
References		5 pts
Outline		5 pts
Rough Draft		15 pts
Final Draft		75 pts
Unfixed corrections	-2 pts each, <i>minimum</i>	
<u>Unexcused absences</u>	<u>-15 pts each</u>	
Total		300 pts

[‡]*I will drop your lowest 2 combined summary + peer review scores, but ONLY if you still submit ALL materials and participate in these exercises, including your own presentation's summary & review.*

Assessment Exam: Satisfactory completion of this course also requires the completion of the Biology Department Comprehensive Exam. This exam is available on Wednesday, May 3rd and Thursday, May 4th at 6:00pm in TNR 170. You may take the exam on either date. Test scores are used to assess general student learning; this metric is used to evaluate how well we have trained our students in the major on various topics in Biology. Scores will neither be made available to you, nor your instructor, and they will have no bearing on your letter grade. However, your BIO 490 grade will be withheld (that is, you will receive an incomplete) until the exam is taken.

Electronic Devices:

Please arrive to lecture on time and turn your cellphone off. While e-readers are permissible in class, you will not be permitted to use such devices for non-class activities (i.e., Facebook). Should you disregard this policy, you will not be able to use electronic devices in class in the future and will forfeit your summary and review points for the day.

Absence Policy and Missing Assignments:

You are required to attend lecture to earn points toward your article summary and peer review assignments. If you skip a lecture, you forfeit these points, even if you have written and submitted

your article summary. **Each unexcused absence will result in a deduction of 15 points from your total grade!** However, if you contact me ahead of time for a conflict (say, interviewing for graduate schools) or you have a doctor's note, you can potentially make up some of the participation by arranging a discussion after class. You *must* be present for your assigned background presentation and primary article presentation. Keep that in mind when selecting specific topics that are scheduled for specific dates. I will *only* consider a make-up presentation if you have a *documented illness or emergency*. **Failure to submit a complete, fully cited, original review article on time will result in an automatic F.**

Assignments and Dropbox:

Article assignments must be completed and uploaded to the D2L dropbox prior to class. **You will also need to bring a copy to class for a peer review.** After our discussion and peer review session, you will upload discussion comments to the D2L dropbox within one week. If you forget to upload your file prior to the discussion, but still have a printed copy, you must bring this to my attention at the beginning of class! You will incur a 2-point deduction, but this is still better than a zero!

Review articles and popular science articles will also be uploaded to the D2L dropbox. The TurnItIn service checks the originality of your work. It is very likely that your submission will have a 10% similarity score or greater; high similarity is OK *provided that* the material flagged by the service corresponds to your reference section, or an internal citation. You should not use lengthy quotes and phrases; these articles should be in your own words! The TurnItIn service takes time to evaluate your submission. Therefore, if you are hoping to find out if your TurnItIn score is acceptable early, I recommend you submit your popular science article by May 6th, and your review article by May 13th. Suspected plagiarism will be dealt with in accordance with the university's academic misconduct policy (see below).

Accommodations:

If you have a *reasonable* course conflict (athletes with a scheduled event, a graduate school recruitment date, knee surgery, etc.), you must notify me ASAP! I *MAY* choose to wave the absence deduction and allow you to submit an article summary and assist with your peer review. In compliance with the Americans with Disabilities Act (ADA), I will make every effort to honor requests for reasonable accommodations made by individuals with disabilities. If you have a disability and require accommodations, please register with the Disability and Assistive Technology Center (6th floor Learning Resource Center in the Library) and *let me know as soon as possible*. Requests for accommodation can be responded to most effectively if I receive the requests early in the semester. Such requests are confidential. More information about the ADA at UWSP can be found here: <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyinfo.pdf>

UWSP Community Bill of Rights and Responsibilities:

UWSP values a safe, honest, respectful and inviting learning environment. A set of expectations for students and instructors, known as the Rights and Responsibilities document, is intended to help establish a positive living and learning environment. For more information go to <http://www.uwsp.edu/stuaffairs/Pages/rightsandresponsibilities.aspx>. The Rights and Responsibilities document also includes the policies regarding academic misconduct, which can be found at <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>. The *minimum* penalty for violating this policy is a recorded zero for the assignment in question.