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# BIOLOGY 490 – SENIOR SEMINAR

## VIRUS PATHOGENESIS

### Section 06, Fall 2018 Course Syllabus

**Instructor:**

Dr. Thomas Lentz

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Phone: (715) 346-2626

Office: CBB 344

**Course Information:**

Room 336, Chemistry Biology Building (CBB)

Tuesday/Thursday; 11:00am – 11:50am

Office hours: 12:00 - 1:00pm Tuesday/Thursday and by email appointment

Course website – see D2L

**Course Overview:**

This seminar will introduce students to different mechanisms of virus pathogenesis through guided writing and presentation assignments. We will learn about virus biology - What viruses are and how they work. We will also develop our skills as science communicators. Students will choose a virus pathology they find interesting, and research how that virus causes disease in its host. We will learn the tools to find primary literature sources. We will develop our skills at critical evaluation of science articles and apply that toward improving our own writing. We will also work through developing a powerpoint presentation on the topic and presenting to an audience of our peers. Through the course, students will come to have a greater understanding of virus pathogenesis and more refined skills as a science communicator.

**Learning Outcomes:**

- Locate, critically read, synthesize, and discuss primary literature articles related to the pathological properties of different viruses
- Demonstrate the ability to communicate biological information through written and orally presentation in a manner that is grammatically correct, articulate, and with appropriately organized for the intended audience
- Evaluate your own and others' written and oral communication skills by providing and applying useful feedback

**Required Materials:**

Lecture notes, reading assignments, and other materials will be provided through D2L.

**Course Communication:**

Information about this course will be communicated through D2L and/or sent to University email accounts. Students are responsible for/expected to check their University email regularly. If you use an email account other than your University account to contact the instructor, be sure your full name is included in the message!

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## Grading:

Grade Items	% of Course Grade
Final Paper	30 %
Final Presentation	25 %
Draft Submissions	20 %
Assignments	5 %
Peer Review	10 %
Discussion Leadership	5 %
Discussion Participation	5 %
Total	100 %

### Grade Scale:

A ≥ 93%	B+ ≥ 87%	C+ ≥ 77%	D+ ≥ 67%
	B ≥ 83%	C ≥ 73%	D ≥ 60%
A- ≥ 90%	B- ≥ 80%	C- ≥ 70%	F ≤ 59%

**Grades will be posted on D2L**

## Grade Items:

**Final paper** – Students will prepare and submit a paper as the capstone assignment of this course. Structure will be modeled after a scientific review article. Formatting, length, and reference specifications are described in the assignment description documents.

**Final presentation** – In addition to a paper, students will also present their project as a powerpoint presentation to the class. The content of the presentation will be derived from the paper project, and thus complementary.

**Draft submissions** – Drafts of the projects will be due periodically and will be graded based on demonstration of satisfactory effort toward the final product.

**Assignments** - Writing and reading assignments will be due periodically. These assignments will be graded on a completion basis, though effort will reflect on the class participation grade.

**Peer review** – Students will be required to review the work of their peers as a component of this course. This will assess critical evaluation skills, but also allow students to reflect on ways to improve their own writing.

**Discussion leadership** - Students will have to prepare materials and lead a discussion period over a science article relating to their project. It is expected that students demonstrate a clear effort at understanding the presented work and providing a constructive framework for discussion of the presented work.

**Discussion participation** - Students will be asked to participate in discussions led by the instructor and other students. Many forms of science discourse take the form of peer discussion groups. Students will be assessed on how well they communicate in this setting.

**Biology Comprehensive Exam.** Satisfactory completion of this course requires your participation in the Biology Department Comprehensive Exam. Test scores are used to compare class averages among various populations of biology majors to assess general student learning. Scores will not be made available to you nor your instructor and will have no bearing on grades. However, your BIOL 490 grade will be withheld until the exam is taken.

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### **Attendance Policy:**

- Attendance at all class meeting times is required. Any missed assignments cannot be made up without approved documentation for an excusable of absence.
- Excusable absences include illness, accident, family emergency, professional development activity, religious activity (see UWSP University Handbook Chapter 22), or university sanctioned event. Acceptable documentation is the instructor's discretion, but may be written or electronic documentation for the reason of absence. In the case you have an expected or unexpected absence, please contact the instructor **AS SOON AS POSSIBLE** to notify about the nature of the absence and determine if it can be excused.
- Late arrival to class will not be excused and any assignment, quiz, or exam due during that class will not be granted a time extension.

### **Academic Conduct:**

**Do not copy the work of other students; Do not represent the work of other students as your own; Do not share your work with other students**

You are responsible for the honest completion and representation of your work and for the respect of others' academic endeavors. Any action of cheating, plagiarism, or academic misconduct is subject to the penalties outlined in UWS University Community Rights and Responsibilities, Chapter 14. Please refer to the University Community Rights and Responsibilities rules and regulations for more information: <https://www.uwsp.edu/dos/Documents/CommunityRights.pdf#page=11>

Student assignments determined to be in violation of these policies will result in a grade of zero (0). Depending on the circumstance, students may receive further penalty in accordance with these policies.

### **Electronic Devices:**

Cell phones should be turned **OFF** and **NOT BE USED** during class times. No other communication or musical devices are allowed. Students needing an electronic language dictionary during exams may use one with permission from the instructor (see below). No video or audio recording of lectures is permitted without the prior permission from the instructor (see below).

### **Students Seeking Assistance & Students Disabilities:**

As the instructor, it is **my goal to meet the educational needs of ALL STUDENTS and to provide the best learning environment possible.**

Any students seeking/considering use of assistive technology, materials, or accommodations are encouraged to talk with the instructor at the beginning of the course. It is my goal to find the most effective way to teach all students. Students with a disability seeking accommodations should also register with the Disability and Assistive Technology Center (<https://www.uwsp.edu/disability/Pages/default.aspx>) in the Learning Resource Center (the Library).

### **Title IX:**

Under federal and state law, and university guidelines, I am required to report acts of a criminal or offensive nature. This includes acts of sexual harassment and assault, bias and hate crimes, illicit drug use, and acts of violence. Any disclosure or description of these incidents – both current and in the past – may be reported to the Dean of Students office (<http://www.uwsp.edu/dos/>) or the local authorities.

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**BIOL490 COURSE SCHEDULE – Senior Seminar: Virus Pathogenesis, Lentz Fall 2018**

Wk	Date	Topic	Assignments Due
1	4	<b>Introduction to course</b> Communication in biological sciences	
	6	<b>Computer Exercise</b> Research, writing, and presentation tools	
2	11	<b>Lesson 1</b> Introduction to virus structure	3 articles and paragraph summary for three viruses of interest
	13	<b>Lesson 2</b> Introduction to virus replication	
3	18	<b>Lesson 3</b> Introduction to virus pathogenesis	3 research articles on virus; Revised summary paragraph;
	20	<b>Roundtable Discussion</b> Mechanisms of virus pathogenesis	Read assigned research article
4	25	<b>Writing workshop</b> Outline-draft-revision-paper Features of quality science writing	Peer review of summary SAT scoring assignment
	27	<b>Writing workshop</b> Strategies for drafting a paper Format and structure	Outline of presentation/paper
5	2	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
	4	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
6	9	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
	11	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
7	16	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
	18	<b>Student Discussion Day</b> Student led evaluation of journal paper	Students prepare discussion materials; Read discussion papers
8	23	<b>Writing Workshop</b> Effective science writing & the review process	Draft of Paper

		25	<b>Writing Workshop</b> Peer review draft of paper	
9		30	<b>Computer Workshop</b> Visual forms of science communication; Preparing a scientific talk	Peer Review of Paper
		1	<b>Computer Workday</b> Creating visual representations	
10		6	<b>Roundtable Discussion</b> Molecular basis of virus pathogenesis; Refining your ideas for a draft	Discussion Topic About Student Virus
		8	<b>Roundtable Discussion</b> Molecular basis of virus pathogenesis; Refining your ideas for a draft	Discussion Topic About Student Virus
11		13	<b>Computer Workday</b> Refining visual representations Student slide workshop	Revised Draft of Paper Draft of presentation slides
		15	<b>Computer Workday</b> Refining visual representations Student slide workshop	
12		20	<b>Forms of Science Media</b> TED talks, Podcasts, and contemporary media	
		22	<b>Thanksgiving Holiday</b>	
13		27	<b>Peer Review Workday</b> Refining papers and presentations	
		29	<b>Peer Review Workday</b> Refining papers and presentations	
14		4	<b>Student Presentations</b> Students present projects to class	Final presentation due
		6	<b>Student Presentations</b> Students present projects to class	
15		11	<b>Student Presentations</b> Students present projects to class	
		13	<b>Student Presentations</b> Students present projects to class	Final paper due

Biology Comprehensive Exam: The exam will be offered at the following times:  
Wednesday and Thursday 5-6 December, 6-7 PM in TNR 464.

### Care Team

The University of Wisconsin-Stevens Point is committed to the safety and success of all students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the success of our students through early detection, reporting, and intervention. As your instructor, I may contact the Office of the Dean of Students if I sense you are in need of additional support which individually I may not be able to provide. You may also share a concern if you or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success or the safety of others, by reporting here:

<https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx>.

### Title IX

UW-Stevens Point is committed to fostering a safe, productive learning environment. Title IX and institutional policy prohibit discrimination on the basis of sex, which includes harassment, domestic and dating violence, sexual assault, and stalking. In the event that you choose to disclose information about having survived sexual violence, including harassment, rape, sexual assault, dating violence, domestic violence, or stalking, and specify that this violence occurred while a student at UWSP, federal and state laws mandate that I, as your instructor, notify the Title IX Coordinator/Office of the Dean of Students.

Please see the information on the Dean of Students webpage for information on making confidential reports of misconduct or interpersonal violence, as well as campus and community resources available to students. Dean of Students: <https://www.uwsp.edu/DOS/sexualassault> Title IX page:

<https://www.uwsp.edu/hr/Pages/Affirmative%20Action/Title-IX.aspx>

### Disability and Accommodations

In accordance with [federal law and UW System policies](#), UWSP strives to make all learning experiences as accessible as possible. If you need accommodations for a disability (including mental health, chronic or temporary medical conditions), please visit with the [Disability and Assistive Technology Center](#) to determine reasonable accommodations and notify faculty. After notification, please discuss your accommodations with me so that they may be implemented in a timely fashion. **DATC contact info:** [datctr@uwsp.edu](mailto:datctr@uwsp.edu); 715/346-3365; 609 Albertson Hall, 900 Reserve Street

### FERPA

The [Family Educational Rights and Privacy Act](#) (FERPA) provides students with a right to protect, review, and correct their student records. Staff of the university with a clear *educational need to know* may also have to access to certain student records. Exceptions to the law include parental notification in cases of alcohol or drug use, and in case of a health or safety concern. FERPA also permits a school to disclose personally identifiable information from a student's education records, without consent, to another school in which the student seeks or intends to enroll.

### Academic Integrity

Academic Integrity is an expectation of each UW-Stevens Point student. Campus community members are responsible for fostering and upholding an environment in which student learning is fair, just, and honest. Through your studies as a student, it is essential to exhibit the highest level of personal honesty and respect for the intellectual property of others. Academic misconduct is unacceptable. It compromises and disrespects the

integrity of our university and those who study here. To maintain academic integrity, a student must only claim work which is the authentic work solely of their own, providing correct citations and credit to others as needed. Cheating, fabrication, plagiarism, unauthorized collaboration, and/or helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. Failure to understand what constitutes academic misconduct does not exempt responsibility from engaging in it. For more information on UWS chapter 14 visit: <https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx>

### **Reporting Incidents of Bias/Hate**

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it: <https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx>.

You may also contact the Office of the Dean of Students directly at [dos@uwsp.edu](mailto:dos@uwsp.edu). Diversity and College Access is available for resources and support of all students: <https://www.uwsp.edu/dca/Pages/default.aspx>.

### **Clery Act**

The US Department of Education requires universities to disclose and publish campus crime statistics, security information, and fire safety information annually. Statistics for the three previous calendar years and policy statements are released on or before October 1<sup>st</sup> in our [Annual Security Report](#). Another requirement of the Clery Act is that the campus community must be given timely warnings of ongoing safety threats and immediate/emergency notifications. For more information about when and how these notices will be sent out, please see our [Jeanne Clery Act](#) page.

The **Drug Free Schools and Communities Act** (DFSCA) requires institutions of higher education to establish policies that address unlawful possession, use, or distribution of alcohol and illicit drugs. The DFSCA also requires the establishment of a drug and alcohol prevention program. The Center for Prevention lists information about alcohol and drugs, their effects, and the legal consequences if found in possession of these substances. [Center for Prevention – DFSCA](#)

**Copyright infringement** is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act. Each year students violate these laws and campus policies, putting themselves at risk of federal prosecution. For more information about what to expect if you are caught, or to take preventive measures to keep your computing device clean, visit our [copyright page](#).