BIOL 472 – VIROLOGY (Online) Syllabus

Instructor: Brian L. Olson, Ph.D.
Professor of Biological Sciences
Saint Cloud State University
e-mail: blolson@stcloudstate.edu


(highly recommended)

Objectives:

After completing this course, students will be able to:

1. classify viruses via several different methods.
2. describe the components and makeup of viruses.
3. describe the genome of many viruses.
4. describe the pathogenesis of many viruses.
5. describe several methods to combat viruses.
6. describe the molec. mechanisms of many viruses.

Where Are Objectives Covered

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Topics:

Viral diseases and pathogenesis
Properties and classification of viruses
Vaccination
The (+) sense RNA viruses
The (-) sense RNA viruses
The double-stranded DNA viruses
The Bacteriophages
The Retroviruses

Evaluation:

Four Multiple Choice Exams -12% each = 48% of Final Grade
Four short-answer assignments - 8% each = 32% of Final Grade
Three Virus Fact Sheet Sets - 2% each = 6% of Final Grade
Written Paper = 14% of Final Grade

A 90 - 100%
B 80 - 90%
C 65 - 80%
D 50 - 65%
F < 50%
Course Responsibilities: This course is offered completely online. It is the student’s responsibility to understand how to utilize D2L BRIGHTSPACE in order to retrieve required material, complete the exams, and submit the assignments, report, and fact sheets during the semester. If difficulties arise, there is computer help located on SCSU’s website, [http://huskynet.stcloudstate.edu/help](http://huskynet.stcloudstate.edu/help), and in Miller Hall through the Learning Resources and Technology Services. The role of the instructor is to set a schedule of what students will do, provide and evaluate learning-based assignments and worksheets, provide and evaluate examinations, and answer student questions. Although this is an online course with more flexibility, this course is structured requiring students to keep on pace throughout the semester. A class schedule is provided that details this structure. It is the students responsibility to follow this schedule without missing due dates. If you have special circumstances that require schedule flexibility, just ask me via email and I will try to accommodate your schedule.

Course Structure: The class is broken into four sections, each four weeks long.

**For learning**, each section has a module on D2L BRIGHTSPACE course content. In each section module, there is an overview/learning objectives (posted under course content), assigned readings in the textbook (listed on the course schedule), assigned readings from papers (posted on D2L BRIGHTSPACE course content), recommended website links to visit (listed on the section overviews), and several sections have online videos (links found on the assignments, section overviews, and D2L BRIGHTSPACE course content). You may also wish to purchase the optional textbook and read the corresponding material.

**For help**, students should email the instructor ([blolson@stcloudstate.edu](mailto:blolson@stcloudstate.edu)) with questions or visit me in my office (WSB-277 inside the Biology Department Office) for discussions. Remember that the more that you put into this course the more you will learn.

**For evaluation**, each section will have one short-answer assignment (posted under D2L BRIGHTSPACE course content), 3 sections have a set of Virus Fact Sheets (posted under D2L BRIGHTSPACE course content) to be filled out, and each section will conclude with a timed, 40 question, multiple-choice exam that can be taken any time during a defined 3-4-day window (listed on the course schedule). Finally, students will write one research report on a virus of their choosing.

**Assignments:** The short-answer assignments are posted in each section module on the D2L BRIGHTSPACE content page and should be filled out as the student reads the textbook and papers, watches the videos, and visits the recommended websites. To receive credit for the assignment, the student must enter their answers into a timed D2L BRIGHTSPACE quiz anytime between the first day of a section and Monday of the week of the section. The quiz will contain the same questions as the assignment and simply require you to enter your answers for streamlined grading. You will only have 40 minutes to complete the Assignment Quiz once you begin so be sure to answer all of the questions BEFORE beginning the quiz. Your assignment quiz MUST be completed before 10pm on the due date. Your score and graded quiz will be made available to you AFTER 10:05pm on the due date by clicking “Submissions” in the dropdown menu to the right of the quiz. Be sure to access your graded quiz and use it to study for the section exam. Assignments are worth 32% of your final grade.

**Virus Fact Sheet Sets:** Three Virus Fact Sheet Sets are posted in their appropriate section module on D2L BRIGHTSPACE content and should be filled out as completely and accurately as possible using information in your textbook and information that you find through internet searching. This is a learning-based exercise designed to encourage you to research several viruses in-depth. During your search, it is expected that you will learn not only the requested details about the virus, but hopefully other interesting information. As such, these fact sheets will be graded as Excellent, Good, Fair, or Poor based mostly on how much effort is put into the Fact Sheet Set and a little on how accurate your Fact Sheet Set is. To submit your Virus Fact Sheet Sets, upload them into the appropriate “Assignment submission folder” in D2L BRIGHTSPACE under the “Assessments” dropdown menu any time before the assigned due date (listed on the course schedule). After 10:05pm on the due date, a key for the Virus Fact Sheet Set will be released on D2L BRIGHTSPACE content in the section module. You should access these keys and use them to study for your section exam. Virus Fact Sheet Sets are worth 6% of your final grade.
Exams: Each section concludes with one multiple-choice exam containing 40 challenging questions that can be taken anytime during the last five days of a section but must be completed by 10pm of the last day of a section. Exams are non-proctored, so you may look in your textbook while taking the exams, however, be aware that once you have started an exam, you will have only 2 hours to complete that exam. **Be advised that you will not have enough time to look up every answer during the exam. You must study and learn the material before the exam.** Furthermore, many of the exam questions require you to assimilate and interpret information presented rather than simply repeating the information. Exams are not comprehensive and there is no final exam for this course. **Please take the exams on an internet connection that will not crash as your two-hour window may expire while you attempt to reconnect.** Exams are worth 48% of your final grade so be sure to study for these and approach them seriously.

Practice Quiz: There will be one practice quiz open during the first three weeks of the course to be sure that you are familiar with online testing. You do not need to read anything except the course syllabus, schedule, and report description to answer these simple questions related to how the course will be run. This exam contains ten very easy questions that will be extra credit points in the class.

Due Date Policy: All assignments and exams are mandatory and have a defined deadline. Late assignments will automatically lose 10% per delayed day. Late assignments should be emailed to the instructor. Exams are offered during a 5-day window of time so there is no excuse for missing an exam, however, you can contact me to make alternative arrangements if you have timing conflicts. **Please take the exam on an internet connection that will not crash as your two hour window may expire while you attempt to reconnect.**

Incomplete Policy: In accordance with University policy, an “Incomplete” will only be awarded under extraordinary circumstances. I will consider giving an “Incomplete” in cases where an illness or family emergency causes a student who is passing the course to be unable to complete the very end of the course.

Expectations: Students enrolled in this course are expected to keep up with their readings. Students are also expected to identify problems early and communicate effectively with the instructor to resolve any issues that may develop. Students are expected to be computer-literate as to downloading files and uploading assignments to the respective online submission folders. Technical/electronic failures will not be accepted as excuses for missed assignments. Although you are allowed to use your textbook during exams, you are expected to take the exams by yourself. **Students are not allowed to work together during exams.**

Please contact me immediately if you have any questions or concerns. The best way to reach me is through email at blolson@stcloudstate.edu.