

BIOLOGY 4095: Molecular Biology of Infectious Disease (3 units)
Syllabus, Fall, 2020

Instructor: Dr. Kristopher J. Koudelka
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Office Hours: Mondays 2:30-3:30PM (Bio 4095 Only) and by Zoom Appointment

Text: To Catch a Virus, ISBN 9781555815073

Lecture/Lab: Mondays and some Wednesdays 1:30-2:25 (Cabrillo Hall 104 - if we return to in person)

PLNU Mission: To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Course Description: This course will take a detailed look in several historic and modern diseases from infectious sources. Each disease explored will include the molecularly focused investigation of disease pathogenesis, transmission, and if applicable treatment. This course will include (but not limited to) the study of influenza, prions, plague, and SARS-CoV-2. Historical and modern limitations on how infectious diseases are studied will also be highlighted. Prerequisite(s): Molecular Biology (Bio 3080).

Course Learning Outcomes: Students will be able to:

1. Explain and describe molecular basis of disease pathogenesis, and transmission for selected infectious agents.
2. Discuss historical and modern limitations on how infectious diseases are studied and interacted with as a society.
3. Read primary literature to integrate new concepts with existing coursework, and orally communicate novel findings and future directions.

Course Credit Hour Information: In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 3 unit class delivered over 15 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 7.5 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

State Authorization: State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

Attendance and Participation Policy: Regular and punctual attendance at all **synchronous** class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. In some courses, a portion of the credit hour content will be delivered **asynchronously** and attendance will be determined by submitting the assignments by the posted due dates. See [Academic Policies](#) in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

Asynchronous Attendance/Participation Definition

A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will determine how many asynchronous attendance days are required each week.

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member has the option of filing a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See [Academic Policies](#) in the Undergraduate Academic Catalog. *Attendance at all exams is required, unless you have a doctor's note excusing you.*

Participation and Cooperation: Class participation counts for 10% of your grade. Much of this course will be interactive. You will be expected to work with online. In addition, you are expected to actively participate in class discussions. We will be using a semi-discussion style format, and we expect you to volunteer to answer questions and also to ask questions whenever you are confused. You should read ahead so that you can participate effectively and for your own learning benefit.

Use of Technology: In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements](#) information. Additionally, students are required to have headphone speakers compatible with their computer available to use. If a student is in need of technological resources please contact student-tech-request@pointloma.edu.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

Academic Accommodations: While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, these students are requested to file documentation during the first two weeks of the semester with the Academic Support Center (ASC), located in the Bond Academic Center. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. Once the student files documentation, the ASC will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual learning needs of the student.

The PLNU Disability Resource Center (DRC) can be reached by phone at 619-849-2486 or by e-mail at DRC@pointloma.edu. See [Disability Resource Center](#) for additional information. For more details see the PLNU catalog [Accommodations](#).

Students with learning disabilities who may need accommodations should also discuss their needs with the instructor during the **first two weeks** of class.

Academic Honesty: Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

PLNU Copyright Policy: Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law. In particular, all homeworks, assignments, and laboratories are owned by Dr. Koudelka, and may not be shared with other individuals or groups outside of the students registered for the BIO4095, Fall, 2020 section. It is a violation of copyright law to otherwise distribute these materials in any form.

Grading: (approximate; I reserve the right to adjust percentages as appropriate for how the course proceeds)

Class Attendance and Participation	10%
Weekly Assignments	50%
Primary Literature Presentation	15%
Midterm	10%
Final Exam (1:30PM, 11/30/2020)	15%
Total	100%

Final examination policy: Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the Class Schedules site. NO requests for early examinations or alternative days will be approved.