

BI312 -- Epidemiology

Spring 2019

Syllabus

Instructor: Dr. Michael Weichhaus
Address: Wesselkamper, Room 107
Phone: 440-4286
Email Address: michael.weichhaus@chaminade.edu
Office Hours: Mon: 12:00 - 15:00 and Wed: 11:30 - 14:30
Class Hours: TTh 10:00 - 11:20; Henry Hall, Room 202

Text:

- **Merrill, RM**, *Introduction to Epidemiology*, Seventh Edition, 2017, Jones & Bartlett Learning

Aims of the course: This course prepares the student for further education in advanced biology courses or related fields by demonstrating the fundamental principles of cellular biology. It introduces the student to the cell as the basic unit of life and details its essential functions. This course is the second semester of the biostatistics sequence for Biology, Biochemistry and Forensic Science majors at Chaminade University. This course was a component of the approved April 2010 curriculum revision and it is a new course. The primary sources used in the course design were 'Scientific Foundations for Future Physicians' a report of the American Association of Medical Colleges and Howard Hughes Medical Institute. This course addresses statistics and research methods elements of the "Psychological, Social and Biological Foundations of Behavior" sections of the MCAT15. It addresses population health and critical thinking elements of the "Critical Analysis and Reasoning Skills" sections of the MCAT15. In general terms it responds to the strong statistics emphasis and public health orientation of the Scientific Foundations for Future Physicians. The course will cover epidemiological concepts and methods concepts. Students will learn how these are central to measuring the health of a population, improving health of a population and reducing health inequities. Central epidemiological concepts such as association, bias and confounding will be addressed, as well as example epidemiological study designs.

Learning Objectives:

Course Learning Outcomes	Biology Program Learning Outcomes	Level
1. Define epidemiology as a discipline, and compare and contrast the concepts of public health, population health and global health	6	D/M
2. Describe and apply principals in the measurement of disease frequency and disease association	1, 6	D/M
3. Derive Koch-like postulates for establishing causality using epidemiological data	1, 2, 3, 6	D/M
4. Apply the common types of epidemiological study design appropriately to example data sets or hypotheses	1, 2, 6	D/M
5. Engage in a comprehensive case study of a health inequity which is revealed by analysis of epidemiological studies and primary data sets	2, 6, 7	D/M
6. Perform an analysis of a commonly understood health 'risk' and understand communication plans for both professional and lay audiences	2, 6, 7	D/M

Lecture Topics

1. Introduction to Epidemiology
2. Pioneering epidemiologists
3. Practical Disease Concepts in Epidemiology
4. Design Strategies and Statistical Methods in Descriptive Epidemiology
5. Descriptive Epidemiology according to Person, Place, and Time
6. General Health Population Indicators
7. Design Strategies and Statistical Methods in Analytical Epidemiology
8. Experimental Studies in Epidemiology
9. Causality
10. Chronic Disease Epidemiology
11. Clinical Epidemiology

Evaluation of Student Performance

The lecture grade will be determined in the following manner:

Weekly Canvas quizzes	20 percent
Midterm Exam	20 percent
Final Exam	20 percent
EpiVillage Assignments	20 percent
Attendance	<u>20 percent</u> 100 percent

Strict scale:	>90% = A
	89%-80% = B
	79%-70% = C
	69%-60% = D
	Below 60% = F

EpiVillage

[EpiVillage](#) is an online, interactive, Epidemiology simulation and learning tool. BI312 involves both traditional lectures and self-directed learning for students using this online tool.

You are required to:

- (1) Complete modules 1-10 of the EpiVillage tool (HONOR system). I suggest that you do these each week, and the Thursday class meeting time will often be available for you to work on EpiVillage.
- (2) Submit written answers on the Discussion questions at the end of each EpiVillage module on canvas. There are three discussion questions per module. You are required to answer ONE discussion question per module/canvas assignment. See canvas assignments for additional details.

Departmental and University Policies:

1. Disability Access

Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information.

2. Title IX Compliance

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct,

physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- a. Chaminade Counseling Center 808 735-4845.
- b. Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

3. Attendance Policy

Students are expected to attend regularly all courses for which they are registered. You are responsible to familiarize yourself on all topics/material covered during your absence. Any student who stops attending a course without officially withdrawing may receive a failing grade. Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades.

4. Academic Conduct Policy

Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, and plagiarism, in addition to more obvious dishonesty.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Dean of the Academic Division. Punishment for academic dishonesty will be determined by the instructor and the Dean of Academic Division and may include an "F" grade for the work in question, an "F" grade for the course, suspension, or dismissal from the University.

Detailed policies on Academic Conduct can be found in the Student [Handbook](#) and University [catalogue](#). The success of the Honor Code is made possible only with the acceptance and cooperation of every student. Each student is expected to maintain the principles of the Code.

Violations of Academic Honesty: Violations of the principle include, but are not limited to:

- Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices in any academic exercise.
- Fabrication and Falsification: Intentional and unauthorized alteration or invention of any information or citation in an academic exercise. Falsification is a matter of inventing or counterfeiting information for use in any academic exercise.
- Multiple Submissions: The submission of substantial portions of the same academic work for credit (including oral reports) more than once without authorization.
- Abuse of Academic Materials: Intentionally or knowingly destroying, stealing, or making inaccessible library or other academic resource materials.
- Complicity in Academic Dishonesty: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.
- Plagiarism: Intentionally or knowingly presenting the work of another as one's own (i.e., without proper acknowledgment of the source) Examples include, but are not limited to:
 - Copying or borrowing liberally from someone else's work without his/her knowledge or permission; or with his/her knowledge or permission and turning it in as your own work.
 - Copying off someone else's exam or paper.
 - Allowing someone to turn in your work as his or her own. DO NOT provide your work to someone else for reference.
 - Not providing adequate references for cited work.
 - Copying and pasting large quotes or passages without properly citing them.

On-Campus Tutoring

- Retention, Advising, and Career Preparation offers free, one-on-one tutoring for all undergraduate students at Chaminade. Subjects tutored include, but are not limited to: biology, chemistry, math, nursing, English, etc. The tutoring corps consists of trained Peer and Professional Tutors.
- Tutoring is available by appointment only. Tutoring takes place in either the Student Support Services building during the hours of 8:30 a.m. to 4:30 p.m., Monday to Friday.
- In order to receive tutoring, a student can visit the Student Support Services building and complete an information form. After submitting this form, a staff member will assist the student in creating
- an online account that allows him/her to book a tutoring appointment through the online system.
- All appointments must be made two days prior to the desired appointment. Cancellations must be made 24 hours in advance.

Online Tutoring through Smarthinking

- All CUH students are eligible to use Smarthinking, an online tutoring system. Students are able to access Smarthinking via their canvas account.
- Through Smarthinking, students are able to connect in real-time with an expert educator in a variety of subjects using a virtual whiteboard technology. Students also have an option to schedule a 30-minute appointment with a tutor of their choice. The Online Writing Lab provides students with the ability to receive a detailed, personalized critique of any written assignment through a formal critique process.
- All sessions are archived and available for students to review at any time for studying or test preparation.

For any questions related to tutoring services, please contact Amanda Lunday, Tutor Coordinator, at amanda.lunday@chaminade.edu