



Public Health and Disease

BIO 140.PGI1

Spring 2020 (7 weeks July 6- Aug 22)

Number of Credits: 3

Meeting Times: None

Days Class Meets: None

Instructor: Zac Garcia

Course Description

Provides an evidence-based approach to the concepts of public health. Topics covered include infectious and non-infectious diseases along with genetic and environmental factors in health and disease.

Prerequisite(s)

ENG 085, ENG 090 and MAT 020

Course Objectives

Following the completion of this course, students will be able to:

1. Demonstrate the role of public health in the context of other sciences
2. Use terms described in class to categorize and relate public health concepts
3. Identify and locate sources of information on public health
4. Differentiate causes of infectious and non-infectious diseases
5. Understand the role that genetics plays in disease
6. Demonstrate how cancer forms and which forms are most problematic for treatment
7. Demonstrate a link between environmental contamination and health
8. Create and interpret graphs using epidemiological data
9. Identify the public health resources in each students' community
10. Relate public health findings to personal health and decision making

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs and course objectives addressed in this class include the following: GEO 4-Demonstrate scientific reasoning (addressed through course objectives 4, 5, 6 and 8)

Textbook

Text: Introduction to public health by Mary-Jane Schneider (Fourth or Fifth edition). The textbook is available in both electronic and printed versions. ISBN- 13: 9781284089233

Other: No additional materials are required.

Grading Procedure

Your grade in the course will be based on materials that are delivered in a course packet. The packet will consist of the following materials that will need to be completed and turned in.:

Discussion questions (15% of overall grade)

Each module will have several questions that you will answer. Your answers should be at least 300 words and address all parts of the question for full credit.

Case study/Homework assignments- (15% of overall grade)

Some modules will have case study and/or homework assignment that are used as an example to highlight important aspects of your readings in the text.

End of module quiz- (60% of overall grade)

After each of the modules you will have a quiz, featuring a mix of multiple choice, short answer and longer answer questions. Questions for the quiz will come from assigned readings in the text and lecture material.

Writing assignment- (10% of overall grade)

You will be asked to write about your experiences with COVID-19 and what specific material from class will inform your future actions and behaviors.

Grading Scale

GPA	GRADE RANGE
4.0	92-100%
3.5	87-91%
3.0	82-86%
2.5	77-81%
2.0	70-76%
1.5	65-69%

Week 1

1.0	60-65%
0.5	55-59%
0.0	0-54%

Failure

Due to the interactive and fully online nature of the course, regular access to the course is required. Any student who fails to access the course for 7 days without notice to the instructor will be removed from the course.

Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism is defined as the failure to give credit for the use of material from outside sources.

Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating is defined as obtaining answers/material from an outside source without authorization.

Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

Course Management

Incompletes

Consistent with JC Policy, an incomplete grade will only be issued if the student has completed the vast majority of the course, is already passing the course after the withdraw deadline, and is unable to

Week 1

complete the course due to an extenuating circumstances. If an incomplete is issued, all grades/scores earned to that date will be used in calculating the course grade.

Help

Available learning services or opportunities for students seeking help with their course work. May include information about tutors, learning centers, reserved library materials, open labs, counseling services.

It is important to contact a Center for Student Success professional prior to the start of the semester in order to receive accommodations in a timely manner. While we will make every effort to coordinate accommodations in a timely manner, failure to self-identify prior to the start of the semester may delay notification to instructors and timeliness of acquiring accommodations. Accommodations do not automatically carry over to the next semester.

<https://www.jccmi.edu/center-for-student-success/accommodations-for-students-with-disabilities/>

Calendar

Syllabus Revisions/Changes

All schedules and policies contained in this document are tentative and are subject to revision at the instructor's discretion with timely notice.

Course Outline

Module 1: Introduction to Public Health

Dates: July 6-12

Text chapters: Prologue and Chapters 1-3

Topics covered: Public health as science, Importance of public health, Who is involved in public health at the local, state, national and international level?

Material to be submitted July 15 for return to instructor:

Module 1 discussion questions

Module 1 homework

Module 1 quiz

Module 2: Epidemiology- finding the origin of a disease

Dates: July 13-19

Text chapters: Chapters 4-8

Topics covered: What is epidemiology? Types of studies, How statistics can be used in public health, The use of data

Material to be submitted July 29 for return to instructor:

Module 2 discussion questions

Week 1

Module 2 homework

Module 2 quiz

Module 3: Infectious Diseases

Dates: July 20-26

Text chapters: Chapters 9-10

Topics covered: What can cause infectious diseases?, Examples of infectious organisms, vaccines, re-emerging infectious diseases

Material to be submitted July 29 for return to instructor:

Module 3 discussion questions

Module 3 homework

Module 3 quiz

Module 4: Non-infectious diseases, Genetics and human behavior

Dates: July 27- August 2

Text chapters: Chapters 11-14

Topics covered: Differences between infectious and non-infectious diseases, Screening for genetic diseases, Impact of decisions on health, Use of drugs and alcohol and health consequences

Material to be submitted August 10 for return to instructor:

Module 4 discussion questions

Module 4 homework

Module 4 quiz

Module 5: Threats to public health

Dates: August 3-9

Text chapters: Chapters 15-19

Topics covered: Tobacco use, Increase in obesity, accidents, maternal and child health, mental health

Material to be submitted August 10 for return to instructor:

Module 5 discussion questions

Module 5 homework

Module 5 quiz

Module 6: Environmental Public health issues

Dates: August 10- 16

Week 1

Week 1

Text chapters: Chapters 20-23

Topics covered: Clean air, clean water, Safe food and drugs, population and its impact on the environment

Material to be submitted August 22 for return to instructor:

Module 6 discussion questions

Module 6 homework

Module 6 quiz

Module 7: Medical care and public health

Dates: 17-21

Text chapters: Chapters 26-30

Topics covered: The U.S. medical system and public health, outcomes-based health practices, healthcare with an aging population, emergency preparedness

Material to be submitted August 22 for return to instructor:

Module 7 discussion questions

Module 7 homework

Module 7 quiz

Complete writing assignment on the impacts of COVID-19

Attendance Policy

In compliance with Federal Title IV funding requirements, as well as college initiatives, reporting of student participation in classes will occur throughout the semester. Instructors will report student attendance at least weekly within JetNet. Students identified as no longer participating – at any point in the semester -- will be dropped or administratively withdrawn from the class.

Caveat

As special events or topics arise in public health throughout the semester, some revisions may be necessary to the course. In the event of unforeseen circumstances, you will be notified by JPay email.

Week 1