



BIO 140: Introduction to Human Disease



COURSE SYLLABUS

Course Number: BIO 140

CRN:

Credits: 3

Year & Semester: Summer 2019

Course Meeting Days & Times: Online

Course Format: Online

Instructor Name: Dr. Steven Fenster

Office Location: BH 2433

Office Hours: Wed and Fri. 3-4 PM (via ZOOM); Tuesday & Thursday 8-9 a.m. (via e-mail).

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Course Description

This is an introduction to the biological basis of human disease. Consideration of the causes and mechanics of human illness and death (etiology, pathology, sociology) in many of the major systems of the human body. Since this is a 5-week online course, you can expect this course to be fast paced and require substantial amount of work over that period. According to the registrar's course policies, you are required to approximately **25-27 hours/week of work time into this course**. This includes readings, lectures, reflections, discussions, assignments, quizzes, exams, and the final term paper.

Disenrollment Policy

Instructors have the option to disenroll a student from a class if and only if the student has missed at least one scheduled class (or required activity in an online class, as specified by the instructor in the course syllabus) during the first four days of the week in which the course is scheduled to meet for the first time. The goal of this policy is to allow students greater access to desired courses and to emphasize the academic responsibilities that begin with the first day of class.

According to this policy, if a student in this class (BIO 140 - online) does not complete the first two online required activities (Reflection #1 and Check-in) by the end of the 2nd day of class (4/30 at 11:59 PM) in which the course starts, then I have the option of disenrollment from the course. Please contact me immediately if you are not able to complete this by the above date and time.



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Course Materials & Resources

Required Texts

Human Disease, Neighbors and Tannahill-Jones. Cengage Learning, 2015. ISBN 13: 9781285065922

Required Materials

Computer with Microsoft Word and PowerPoint, internet access, knowledge of CANVAS

Other useful online free resources:

[National Center for Biotechnology -NCBI](#)

[Online Mendelian Inheritance in Man](#)

[PubMed](#)

[Diseases Explained](#)

[Centers for Disease Control and Prevention \(CDC\)](#)

Canvas

Online materials (lecture notes, discussion topics, reading and reflection assignments, videos, quizzes, exams, and details of the final term paper) will be available at [Canvas](#). If you are not familiar with Canvas, please work through the [Student Canvas Orientation](#). For technical help with Canvas contact the 24/7 support hotline at 855-971-1611 or submit a HELP ticket in Canvas.

Student Course Learning Objectives

- Connect the principles of modern pathology and how it links to societies in developed and underdeveloped nations
- Apply basic knowledge of biology to describe the nature and impacts of human disease
- Analyze the role of the scientific method in shaping research in biomedical science
- Identify the characteristics of transmissible agents of disease including the basic mechanisms of pathogenesis in prion-, virus-, bacteria-, fungus-, and parasite-mediated diseases.
- Detail the basic functions of inflammation and pathogenesis of immune deficiencies and allergies.
- Explain the process of malignant transformation, invasion and metastases as well as the pathogenesis of cancer.
- Reflect critically on the relevance of the study of pathology to the understanding of human development and well-being.
- Be able to describe processes the underlying process that can lead to development of genetic and hereditary diseases
- Be able to explain the basic functions of most of the physiologic systems of humans and describe the pathogenesis of at least one disease that affects each of these systems.

Program Learning Outcomes (from Liberal Arts Core)

- Apply intellectual and practical skills to think critically and communicate effectively. These learning outcomes will be assessed using case studies and discussion boards.



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- Demonstrate the diversity of past and/or present human cultures and an understanding of the physical and natural world. This outcome will be accomplished through material on changing treatments, non-traditional and non-Western treatments. Student learning will be assessed using four exams throughout the semester.
- Demonstrate the ability to be skilled, engaged, and contributing members of a local and global society. This outcome will be accomplished via on-class discussion of issues associated with Western medicine including doctor-patient knowledge differential, patient self-advocacy, and availability of health care for different populations. Student learning will be assessed using four exams throughout the semester.
- Reflect critically on ethical issues and make reasoned, intelligent judgments about complex problems. Ethical issues are included in many of the selected case studies and will be covered during lecture portions of the class. Assessments will be done via discussion board responses to case studies and via exams.
- Integrate and apply knowledge, skills and responsibilities to new settings and complex problems. This will be evaluated using a term paper on a human disease.

Course Requirements & Grading Policies

Due dates are subject to change. Check Canvas for updated due dates.

Assignment	Points
Weekly Quizzes (4 @ 10 pts. each)	40
Exams (3 @ 100 pts each)	300
Reflections (11 @ 10 pts; drop lowest score)	100
Discussions (4 @ 10 points each)	40
Reading Assignments (5 @15 pts each; drop lowest score)	60
Term Paper on a Disease of Choice	100
TOTAL POINTS	640

Grading Scale by %: Letter Grade/Point Range. For example, $593/640 = 92.7\%$ or an A- in the course.

A	94-100	D+	67-69
A-	90-93	D	63-66
B+	87-89	D-	60-62
B	83-86	F	0-59
B-	80-82		
C+	77-79		
C	73-76		
C-	70-72		



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Quizzes

The main objective of the quizzes is to provide timely feedback regarding your progress in the course. The quizzes should familiarize you with my style of questions. The quizzes, together with the exams, give you two chances on most topics. They are designed to help you succeed in this course. You will have 20 minutes to complete the quiz. If you have approved accommodations for more time, please contact me immediately so I can provide more time to complete the quiz.

Discussions

The main goal of the discussion is for you to post a critical comment on a relevant topic to disease. For all discussions, you will then be required to comment on another student's discussion post. For these discussions, we will need to be certain to keep them civil and respectful. See the course policy on netiquette (or see below) for more information about the proper way to post comments on a discussion board.

Reflections

The reflections assignments will typically involve you watching short videos and then briefly answering questions. These reflections are intended to be a supplement to the PowerPoint lectures and assigned textbook readings. Make certain to complete these reflection assignments in a timely manner.

Reading Assignments

The reading assignments will typically involve a couple of articles that you will read and then provide thorough responses to focus questions. I will expect that you provide more detail in your answers than expected for the reflection assignments (see above).

Exams

There will be a total of 3 Exams that will cover material presented in the course usually over a week's worth of material. I will provide a study guide that outlines what chapters and other material that you will be responsible for on the exam. Exams will be 55 minutes in duration and I will use what is called "lock-down browser" that will not allow you to visualize or use any other material during the exam. Make certain to find a quiet place where you will not be interrupted by distractions when you are taking these exams. I will provide instructions ahead of time on the format of the exam.

Final Paper

For the final term paper, you will be able to write about a disease of interest. **I will provide specific instructions on the requirements for the paper.** In short, you will need to discuss the science of the disease, societal and cultural implications, and finally existing and new treatments. ***You will be required to submit a brief description of the disease topic for instructor approval prior to beginning this project.***

Course Policies

Attendance



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Since this is an online course, you define when you want to “attend” class but you need to make certain that you are completing on time the following:

- the reflections,
- assignments,
- discussions,
- reading the assigned chapter from the textbook,
- taking the quizzes and exams,
- composing the term paper on time.

Disenrollment Policy

You will be disenrolled from this course if you do not complete the first two assignments (Discussion Post – Introduce Yourself and Reflection #1) in the course. See above for more information.

Course Withdrawal Information

Withdrawal from Course – The last day to withdraw from FLC classes with a grade of “CW” (course withdrawal) is (May 14th, 2019 @ 4:00 PM). This is a college-wide deadline that is not negotiable.

To withdraw from this course, go to the Registrar’s Office, Room 160, Miller Student Services Building before the course withdrawal deadline. They will help you through the process. You do not need my signature on the course withdrawal request form. You should also be able to withdrawal from the course online prior to May 14th.

Starting Fall 2013, students have a life-time limit of three individual course withdrawals from FLC courses. If you have withdrawn from classes before Fall 2013, these will not count towards your lifetime limit. Also, withdrawing entirely from a semester (all classes) does not count against your lifetime “CW” limit. Semester withdrawal is handled under a different policy and procedure. Please refer to the Academic Policies section of the Fort Lewis College Catalog of Courses for more information about course and semester withdrawal policies and procedures.

Course Expectations

Tips for Success

- Make certain to keep on top of the material. This is only a 5-week course so we will be moving through the material very quickly. **This will necessitate you to read all required material and complete all assignments on time.**
- If you ever have any difficulty understanding or completing an assignment, PLEASE e-mail me promptly. I am very prompt in responding to e-mail messages. Don’t worry if it is sent to me late at night. I can respond first thing in the morning to your question or query.
- Don’t put completing assignments off to the last minute. Make plans to spend time each day to monitor when assignments, quizzes, and exams are due.



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- Embrace this class as a valuable learning experience not just as a requirement needed for your degree. If you take that positive attitude, then you will surely succeed in this course and enjoy your experience, too!

Professional Expectations

- Complete all assignments on time
- Ask the instructor for help when you needed. My job is still help you succeed in this class. Your job is to succeed in this class.
- Treat all members of the class (and your instructor) with respect and dignity.

Credit Hour Syllabus Statement

The typical student in this 3-credit lecture course should expect to spend at least 6-8 hours per week of concentrated attention on course-related work, including but not limited to time spent reading, reviewing, organizing notes, preparing for upcoming quizzes/ exams, problem solving, developing and completing projects, and other activities that enhance learning. **Since this a 5-week course, you should be spending at least 25-27 hours/week on this class.**

Netiquette

“Netiquette” is a protocol for interacting and behaving online. Although digital interactions are not face-to-face, they affect real people; thus, we must be sensitive to the fact that our words impact others. The following are an outline of ways that you can communicate professionally and sensitively online:

1. Be sensitive to others’ cultural, social, political and linguistic backgrounds. Everyone is different and unique. Remember to show respect for our differences.
2. Incorporate professionalism and good taste when composing responses in discussion forums, online collaboration and feedback tools, and other interactive spaces. Avoid profanity and other harsh comments. Minimize your use of slang, as it can be misinterpreted.
3. Avoid using all capital letters as it can be construed as “shouting” online, which can be perceived as aggressive behavior.
4. When using acronyms (we have many in the educational field!) make sure to clarify its meaning when you first use in your message.
5. Proofread your responses for accuracy and tone.

Disability Services

Fort Lewis College is committed to providing all students a liberal arts education through a personalized learning environment. If you think you have or you do have a documented disability which will need reasonable academic accommodations, please call the Director of Disability Services, 280 Noble Hall, 970-247-7459, for an appointment as soon as possible.

Academic Integrity

Academic dishonesty includes all forms of unethical or illegal behavior which affects a student’s academic standing, including, but not limited to, cheating on exams, plagiarism, forgery of academic documents, falsification of information on academic documents, or unauthorized access to computer files containing



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academic information. Academic dishonesty may result in sanctions ranging from a lowered grade on a particular assignment to an "F" in the class and report submitted to the Office of the Vice President of Academic Affairs. Please see FLC's policy on [Academic Integrity by Students](#) for more information.

Digital Access

- All class assignments will be provided and submitted via Canvas. Work for this class will require a computer, reliable internet access, and possible use of other hardware and software. It will be especially important that you have, the following, or that you can access it at FLC or elsewhere:
- The latest versions of Chrome and Firefox. An older computer and/or computer that does not allow you to install the newest versions of these programs will not work for your classes at FLC.
- Please check your compatibility in advance and plan to use a computer that will allow you to access the necessary programs.

Summer Schedule w/required reading

Week 1

- **Introduction to Human Disease and Mechanisms of Disease: Chapters 1 and 2**
- **Neoplasms, Inflammation and Infection: Chapter 3 and 4**
 - Common diseases of infection
 - Cancer

What is Due?

1. Discussion Board – Introduce Yourself
2. Reflection #1 (4/30)
3. Reading Assignment #1 (5/1)
4. Reflection#2 (5/2)
5. Quiz #1 (5/2)
6. Discussion #1 (5/3)

Week 2

Immune System Diseases/Disorders and Diseases of the Blood: Chapters 5 and 6

- Common diseases of the immune system
- Human Immunodeficiency Virus and AIDS
- Common diseases of the blood

What is Due?

1. Reflection #3 (5/6)
2. Reflection #4 (5/8)
3. Reading Assignment #2 (5/9)
4. Quiz #2 (5/9)
5. Reflection #5 (5/10)
6. Discussion #2 (5/11)

Week 3



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Antibiotics and Vaccine (Reading Assignments and Video)

- The importance of proper use of antibiotics to fight infection
- Importance of vaccines in disease prevention

Cardiovascular and Respiratory Diseases: Chapter 8 and 9

- Disease of the heart and blood vessels
- Diseases of the lungs

Digestive System Diseases and Disorders: Chapter 11

- Diseases that affect the intestines

What is Due?

1. Exam #1 (5/12 by 11:59 PM)
2. Reflection #6 (5/13)
3. Reading Assignment #3 (5/15)
4. Reflection #7 (5/16)
5. Quiz #3 (5/17)
6. Discussion #2 (5/18)

Week 4

Endocrine Disorders: Chapter 14

- Endocrine glands and their function
- Diabetes mellitus – Types I and II

Reproductive System Diseases and Disorders: Chapter 17

- Common diseases
- Sexually transmitted diseases

Genetic and Developmental Diseases and Disorders: Chapter 19

- Common genetic disorders
- Rare genetic diseases (Tay-Sach's, Cystic Fibrosis, Sickle-Cell Anemia, Huntington's)

What is Due?

1. Reflection #8 (5/20)
2. Reflection #9 (5/21)
3. Reflection #10 (5/22)
4. Reading Assignment #4 (5/23)
5. Exam #2 (5/24)
6. Discussion #3 (5/25)

Week 5

Nervous System Diseases and Disorders: Chapter 15

- Basic anatomy of the nervous system
- Alzheimer's disease, Meningitis, Epilepsy, and Parkinson's disease,

Mental Health Diseases and Disorders: Chapter 20

- The importance of recognizing and the treatment mental health disorders

What is Due?



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1. Reflection #11 (5/27)
2. Disease Paper (5/28)
3. Discussion #4 (5/29)
4. Reading Assignment #5 (5/30)
5. Final Exam (5/31)

Course Schedule

Week	Date	Topic (s)	Activities and Due Dates
1	4/29 – 5/5	<ul style="list-style-type: none">• Introduction to Human Disease and Mechanisms of Disease (Chapters 1 and 2)• Neoplasms, Inflammation and Infection (Chapter 3 and 4)	<ul style="list-style-type: none">• Discussion Board – Introduce Yourself• Reflection #1 (4/30)• Reading Assignment #1 (5/1)• Reflection#2 (5/2)• Quiz #1 (5/2)• Discussion #1 (5/3)
2	5/6 – 5/11	<ul style="list-style-type: none">• Immune System Diseases and Disorders (Chapter 4 cont.)• Diseases of the Blood (Chapters 5 and 6)	<ul style="list-style-type: none">• Reflection #3 (5/6)• Reflection #4 (5/8)• Reading Assignment #2 (5/9)• Quiz #2 (5/9)• Reflection #5 (5/10)• Discussion #2 (5/11)
3	5/12 – 5/19	<ul style="list-style-type: none">• Antibiotics and Vaccines (readings)• Cardiovascular and Respiratory Diseases (Chapter 8 and 9)• Digestive System Diseases and Disorders (Chapter 11)	<ul style="list-style-type: none">• Exam #1 (5/12 by 11:59 PM)• Reflection #6 (5/13)• Reading Assignment #3 (5/15)• Reflection #7 (5/16)• Quiz #3 (5/17)• Discussion #2 (5/18)
4	5/20 – 5/26	<ul style="list-style-type: none">• Endocrine Disorders (i.e. Diabetes) (Chapter 14)• Genetic/ Developmental Diseases and Disorders (Chapter 19)• Reproductive Disorders (Chapter 17)	<ul style="list-style-type: none">• Reflection #8 (5/20)• Reflection #9 (5/21)• Reflection #10 (5/22)• Reading Assignment #4 (5/23)• Exam #2 (5/24)• Discussion #3 (5/25)
5	5/27 – 6/2	<ul style="list-style-type: none">• Nervous System Disorders (Chapter 15)• Mental Health Diseases and Disorders (Chapter 20)	<ul style="list-style-type: none">• Reflection #11 (5/27)• Disease Paper (5/28)• Discussion #4 (5/29)• Reading Assignment #5 (5/30)• Final Exam (5/31)



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