

# Biology 191 Human Disease

## Overall Goal

The purpose of this course is to explore disease. Since diseases affect many people, understanding approaches to solving disease problems is important to everyone. This course has no prerequisites so that anyone should be able to participate and gain a better understanding of disease.

## Course Description

This course will cover the biological basis of some human diseases including topics such as cancer, nutrition, genetic diseases and more. The course will explore how disease is studied from a variety of contexts and how that translates into helping patients. Since understanding the molecular mechanisms underlying many diseases leads to improvement in human health, some of the course will focus on how biologists approach disease in the laboratory. This focus on scientific inquiry as it relates to disease will involve learning basic molecular/cellular biology, exploring how defects in molecular mechanisms cause disease and how scientists investigate disease in the laboratory with the hope of finding cures.

## Contact Information

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Office hours: Mon 3-5, Tue 10-11, Wed 3-4, Frid 8:30-9:30

Please feel free to stop by or schedule an appointment outside of office hours.

## Assigned Reading

Textbook: The Nature of Disease by McConnell. Readings from the textbook are as indicated.

Readings of specific journal articles will be the subject of some assignments.

## Class Arrangement

Classes will involve learning material about biology and disease as well as Discussions on Fridays on topics relevant to the course as listed.

**Grades (Total 500 points)**

Quizzes: 210 points (30 points per quiz, best 7 of 8)

Assignments: 140 points (20 points per assignment, best 7 of 8)

Paper : 150 points (25 points part 1, 25 points part 2, 100 points complete paper)

**Assignments, Paper and Quizzes**

Assignments will be posted on moodle (moodle.kenyon.edu) and are due in class on the days indicated. Some assignments will involve responding to journal articles where you will be asked questions about specific articles.

Each student will also write a paper that is due on December 19, 2008. The subject of the paper will be from a list of topics provided by the instructor. To help in the preparation of this paper there will be assignments that lead up to the paper, these are due as indicated.

Quizzes will occur in class as indicated. Although quiz dates are unlikely to change, you will be informed in advance if they do.

**Late Assignments**

Five percent of possible points will be deducted per day late. Since all assignments are due in class, if you have an advanced excused absence then the assignment must be handed in before the date it is due. Work that is more than a week late will not be graded.

**Policy on Absences**

Attendance will be monitored in this course. Absences can be authorized by the instructor, the Dean of Students or the Dean of Academic Advising. If you have an authorized excused absence for an exam or quiz the instructor must be informed before the exam or quiz, so that a make-up can be scheduled. Twenty-five points of your grade will be deducted for each set of 3 absences.

**Academic Honesty**

Students are expected to abide by Kenyon's policy on academic honesty and any infractions will be dealt with as described in the Kenyon College Catalog.

**Disabilities**

If you have a disability and feel that you need special accommodation please discuss it with the instructor and Erin Silva (PBX 5453; [salvae@kenyon.edu](mailto:salvae@kenyon.edu)) at the Office of Disability Services as soon as possible.

The syllabus may be changed.

<u>Date</u>	<u>Week</u>	<u>Topics</u>	<u>Friday Discussions</u>	<u>Assignments (A)</u>	<u>Quiz (Q)</u>
8/29 F	<b>1</b>	Introduction-Chap 1			
9/1 M	<b>2</b>	The Cell-Chap 2			
9/3 W					
9/5 F			Research Overview		
9/8 M	<b>3</b>	Biol. Mech, Cell Injury-Chap 2		A1 given	Q1
9/10 W					
9/12 F			Epidemiology	A1 due	
9/15 M	<b>4</b>	Reaction & Repair- Chap 3-4		A1 given	Q2
9/17 W					
9/19 F			Human Reaction	A2 due	
9/22 M	<b>5</b>	Cancer -Chap 6		A3 given	
9/24 W					
9/26 F			Clinical Trials	A3 due	
9/29 M	<b>6</b>	Genetic Disease- Chap 7		A4 given	
10/1 W					
10/3 F			Models	A4 due	
10/6 M	<b>7</b>	Immune/Infectious Disease-Chaps 8-9			Q3
10/8 W					
10/10 F		–Reading day no class			
10/13 M	<b>8</b>	Disorders of Lifestyle-Chap 10		A5 given	
10/15 W					
10/17 F			Disease and Time	A5 due	
10/20 M	<b>9</b>	Circulatory System-Chaps 11-13		A6 given	
10/22 W					
10/24 F			Disease Burden	A6 due	
10/27 M	<b>10</b>	Circulatory System-Chaps 11-13			
10/29 W					
10/31 F			Biological Research	<b>Paper part 1 given</b>	
11/3 M	<b>11</b>	The Respiratory System-Chap 14			Q4
11/5 W					
11/7 F			Biological Research	<b>Paper part 1 due</b>	
11/10 M	<b>12</b>	The Digestive System-Chap 15			Q5
11/12 W					
11/14 F			Finding Sources	<b>Paper part 2 given</b>	
11/17 M	<b>13</b>	The Liver-Chap 16		A7 given	Q6
11/19 W					
11/21 F			Translational Res.	A7 due	
11/24-28		Mon-Frid Thanksgiving Break			
12/1 M	<b>14</b>	Pancreas -Chap 17		<b>Paper part 2 due</b>	Q7
12/3 W					
12/5 F			Difficult Diseases		
12/8 M	<b>15</b>	Special Topics: Diseases of interest to the class		A8 given	Q8
12/10 W					
12/12 F			Laboratory Tests	A8 due	
12/19 F		<b>Final Paper due</b>			