

NORTH SHORE COMMUNITY COLLEGE  
DANVERS, MASSACHUSETTS

COURSE OUTLINE  
Fall 2017

**COURSE:** *BIO 108-E (98477), The Body in Health and Disease*

**INSTRUCTOR:** *Professor Noel Ways*

**TEXT:** *Anatomy and Physiology, 6th edition; by Gunstream. © 2016. McGraw Hill Publisher*

*Always bring text to class!!*

**ADDITIONAL SUPPLIES:** *Recorder, Three Ring Binder*

**LOCATION AND TIME:** *Lecture: Danvers/Berry 206 Mon/Wed 11:30 - 12:45*

**COLLEGE COURSE DESCRIPTION:**

**BIO108 - The Body in Health and Disease**

*Pre: Communications Proficiency*

A study of the interrelationships of anatomy, physiology, and pathology with chemical and microbiological consideration for students in the health care field. Primarily for mental health technicians, medical secretaries, and public and environmental health officers. Fulfills open and liberal arts electives. (3 hours of lecture per week)

**INSTRUCTIONAL OBJECTIVES:**

*This course is given to provide a necessary background for students who will pursue a career in the medical and paramedical curricula or other related fields. It also provides answers to those keenly interested in the human body both in form and function. With this in mind, the following objectives will be pursued:*

- *The first lecture provides a basic orientation to the human body and covers broad topic such as homeostasis and disease*
- *Tissues and membranes are covered with a focus on those of particular importance for ensuing lectures.*
- *The first major system to be reviews in the integumentary system. Skin*

*structure, thermoregulation, wound healing, as well as skin disorders will be discussed.*

- *Skeletal system will first focus on osseous tissue and calcium regulation. This is followed by a study of the major bones of the body. Finally the synovial joint is discussed.*
- *Following the skeletal system, the muscular system will begin with a look at the muscle tissue and muscle contraction. Joint movements will also be identified.*
- *The next topic will be the anatomy and physiology of the nervous system. The human brain and spinal cord will be discussed, with special focus on major regions and their functions. How these regions work synergistically will be of major importance. Important neurological diseases will be identified.*
- *The focus then will shift to the cardiovascular system. First, the blood will be explored, with particular emphasis on clotting mechanisms and the various cells found in the blood with their respective functions. Diseases of anemia, cancer will be discussed.*
- *The structure and function of the Heart and the cardiac cycle will then be discussed. Regulation of cardiac output will be examined. Disorders involving the heart will also be identified.*
- *Blood vessels and the Lymphatic system will follow next in the lecture sequence. The means by which fluids flow in the body will be examined and then a detailed look at the anatomy and physiology of several lymphatic organs, with particular emphasis on their role in the prevention of disease.*
- *Following the discussion on the lymphatic organs, a detailed look at immune response will follow. This will first involve a look at non-specific host immune responses and be followed by specific host immune responses. Finally, the role and use of vaccines and antiserum will be examined; followed by diseases caused by a breakdown of immune functionality.*
- *The respiratory system will be the next system to be examined. This will commence with an identification of the basic anatomy and physiology of the basic organs, as well as the larynx. Several disorders of the respiratory system will be identified that involve structural malformations, disease producing organisms, or chemical insult.*
- *The digestive system will follow that same pattern as that of the respiratory system, where the anatomy of the essential organs will be discussed followed by their functions. Besides the alimentary canal, this discussion will also include dentition, liver, gall bladder, and pancreas. Due to the extensive anatomical concerns of this system, only a few diseases/disorders will be covered.*
- *The discussion of the urinary system will focus on essential anatomical organs*

*and functions of the system. The physiology of the urinary system will be discussed primarily in terms of it's outcomes and the importance in the maintenance of homeostasis and health.*

- *the reproductive systems. Here again, essential anatomical feature will be identified, but the discussion will then be followed by a more elaborate discussion of diseases and associated problems that can occur.*
- *Endocrine system functions and select mechanisms of control will then be looked at. The student will be expected to learn and illustrate several negative feedback mechanisms that will be discussed in lecture. Finally, a look at what can happen with different aspects of the control paradigms presented breakdown; and what this means in terms of the anatomical and physiological consequences will be explored, as well as current means for controlling such disorders.*

**TEACHING PROCEDURES:**

*The lecture sequence will be presented in a systematic fashion with accompanying overheads to facilitate organization and understanding of the lecture material. Significant emphasis will be placed upon physiological processes where appropriate with an aim toward an appreciation for the integration of various physiological processes.*

**GRADING POLICY**

*The assignment of a final semester grade will be dependent upon the completion of all lecture exams. The lecture exams will concentrate on material covered in lecture, and the nature of the exams are non-comprehensive and will only cover material from the previous exam.*

**Grading Policy:**

A	4.0	93-100	B <sup>-</sup>	2.7	80-82	D <sup>+</sup>	1.3	67-69
A <sup>-</sup>	3.7	90-92	C <sup>+</sup>	2.3	77-79	D	1.0	63-66
B <sup>+</sup>	3.3	87-89	C	2.0	73-76	D <sup>-</sup>	0.7	60-62
B	3.0	83-86	C <sup>-</sup>	1.7	70-72	N	0.0	0-59

**ATTENDANCE POLICY:**

*Attendance of every lecture and every lab is strongly encouraged, as material will be presented that may not be otherwise covered in the text. A student will not be penalized for failure to attend a class, however, it should be noted that lecture exams will have strong representation from the lecture sequence.*

*A name call will be taken for registrar tracking purposes.*

## **NOTES “the fine print”**

### **1 Administrative**

- a. **The Syllabus** *Please keep a copy of this syllabus as a record of course content for future application purposes.*

### **2 Contact**

- a. **Contact Information** *See email address for contact link. When emailing, always identify yourself and the class that you are in. Always have the subject line appropriately filled in. I will not open mail that is not properly identified. When I communicate with the class the college email addresses are used. If you have a preferred email address please send this to me and I will add this to the class communication list.*

### **3 Recording of lectures**

- a. **Recording of Lectures** *Recording of the lectures is always permitted. The use of lap-top computers or word processors is encouraged if it helps the student integrate the material. Feel free to use a digital camera to photograph laboratory dissections, models, or any other supportive tool. You may videotape the lecture if you like. In short, you may do anything you deem necessary to master the subject matter as long as it is legal, ethical, and non-disruptive.*

### **4 Attendance**

- a. **Attendance** *of every lecture and every lab is strongly encouraged, as material will be presented that may not be otherwise covered in the text. Also, as special assignments or lecture sequence modifications or exam date changes may occur; it is imperative that you are proactive in ascertaining if changes have been made and what material has been covered.*
- b. **Tardiness** *Please be on time. Tardiness is disruptive to both the students and the instructor. If you are late, please make sure that you are marked down on the attendance sheet before you leave. Further, announcements, schedule changes, exam date changes etc, may be given at the very beginning of class.*
- c. **Leaving Early** - *Never leave class early as lecture topics could be discussed that are not anticipated or special announcements or schedule modifications may be made at the very end of class.*

### **5 Course Materials/Services**

- a. **Alternative Textbook** *If the student chooses to use an alternative textbook, or an edition other than the one required for this course, it is the students responsibility to obtain information that is either not covered or otherwise not*

- approached in similar manner as in the required text.*
- b. **Textbook Usage** *The role of the textbook is to be a supportive tool to the lectures. The student is not expected to memorize the entire textbook, but to use it to reinforce concepts and material presented during lecture. Please bring your textbook to class.*
  - c. **Web Site** *The web site associated for this course can be found at the following address: [www.noelways.com](http://www.noelways.com) . Once the site is accessed, select your course and there you will find your lecture outlines, handouts, and other support material. There is also an email button for correspondence with your instructor.*
  - d. **Lecture Outlines and Supplemental Materials** *are to be found on the internet. All course materials should be downloaded and organized in a three ring binder during the first week of classes.*
  - e. **Tutoring** *The college provides free tutoring services during Fall and Spring semesters. Contact the academic support center for the days and times. Tutoring is a free service of the college and designed to assist students who desire to excel in their mastery of the material as well as those struggling.*

## 6 Exams

- a. **The Exam Schedule** *below is a tentative but probable schedule of topics and dates. The schedule will be modified according to the progress of the lectures. The exam dates are target dates and will represent only material actually covered in class and video assignments. Specifics regarding content will be given as the exam date approaches.*
- b. **Exam Filing** *All exams are returned to the instructor and filed after being handed back for review.*
- c. **Make-up Lecture Exams** *are to be avoided! But if a make-up is needed, documentation is required to certify that the need is legitimate. If documentation is not presented, a make-up is still permitted, but a penalty is applied at the discretion of the instructor. If there is to be a make-up, this task should be accomplished within a week that the student returns to school in good health. Dates and times are limited, so the students may need to make special arraignments to do the make-up. Contact me so that a time and date can be coordinated. After a week, the instructor reserves the right to refuse a make-up.*
- d. **Make-up Lab Exams** *Lab exams (practicals) are difficult to make up. If you miss a lab practical, this may be the exam grade you drop.*

## 7 Grading

- a. **Dropping One Exam** *The lowest grade of the semester is dropped, with exception of the last exam set and any other exams that the instructor designates as “non-droppable”.*
- b. **Final Grade** *Your final course grade is typically determined the day of the final*

*exam. Once the grades are submitted, confirm your grade with the college, and contact me if there are any issues. After four weeks of the grades being submitted, exams are recycled, and grades are final.*

*c. **Exam Grades** are not given over the internet.*

## **8 School Closings and Emergencies**

*a. **Unscheduled School Cancellations** If there is a college cancellation, please check the announcements button on the web for instruction. Class time missed due to unscheduled school cancellations must be made up. Follow instructions on the web for details. If there is a scheduled exam, this will be covered the next time we meet.*

*b. **Adverse Weather Phone Number:** ext. 4200*

*c. **Scheduled School Cancellations** Assignment over mid-semester break will be detailed as we approach that time.*

## **9 Final Points**

*a. **Recommendations** Should you seek a letter of recommendation to future programs, please provide the instructor with appropriate information and deadlines that you are facing and a stamped and addressed envelope. Finally, to assure that your application is complete, please contact the school after a reasonable period of time to assure their having received the letter. Contact me if there are any problems.*

*b. **Identification** of all texts, recorders, and lab manuals is important. Please put your name and phone number on all personal belongings. If you leave something behind, you may be contacted as to where to pick it up.*

*c. **Cellular Phones and Text Messaging** - Unless you anticipate an emergency call, please turn your phones off. Text messaging is prohibited during class.*

*This schedule is tentative and will be adjusted according to the progress of the lectures.*

### **Schedule of Lecture Topics and Target Dates**

<i>Week of</i>	<i>LECTURE</i>	
<i>September 3</i>	<i>Essential Introductory Concepts</i>	
<i>September 10</i>	<i>Tissues and Membranes</i>	<i>Exam 1</i>
<i>September 17</i>	<i>Integumentary System</i>	<i>Exam 2</i>
<i>September 24</i>	<i>Bones</i>	<i>Exam 3</i>
<i>October 1</i>	<i>Articulations</i>	<i>Exam 4</i>
<i>October 8</i>	<i>Myology / Muscular System</i> <i>(M) College Closed - Columbus Day</i>	<i>Exam 5</i>
<i>October 15</i>	<i>Nervous System</i>	<i>Exam 6</i>
<i>October 22</i>	<i>Blood</i>	<i>Exam 7</i>
<i>October 29</i>	<i>Heart</i>	<i>Exam 8</i>
<i>November 5</i>	<i>Lymphatic System</i> <i>Nov 11 (F) College Closed - Veterans Day</i>	<i>Exam 9</i>
<i>November 12</i>	<i>Immunity</i>	<i>Exam 10</i>
<i>November 21</i>	<i>Immunity</i> <i>Thanksgiving Recess - Nov 24 - 27</i>	--
<i>November 26</i>	<i>Respiratory System</i>	<i>Exam 10</i>
<i>December 3</i>	<i>Digestive System</i> <i>April 18 (M) College Closed - Patriots' Day</i>	<i>Exam 11</i>
<i>December 10</i>	<i>Reproductive System, Male</i>	<i>Exam 12</i>
<i>December 17</i>	<i>Final Exam</i>	--

## Body Health and Disease Exam Contents

(Modification of content, dates, or number of exams will be announced in class, should any be made. Exams may not be given in the order designated below.)

<i>Exam #</i>	<i>Grade</i>	<i>Exam Title</i>
Exam #1:	_____	_____
Exam #2:	_____	_____
Exam #3:	_____	_____
Exam #4:	_____	_____
Exam #5:	_____	_____
Exam #6:	_____	_____
Exam #7:	_____	_____
Exam #8:	_____	_____
Exam #9:	_____	_____
Exam #10:	_____	_____
Exam #11:	_____	_____
Exam #12:	_____	_____
Exam #13:	_____	_____

Calculation of your grade is simple. Drop your lowest grade, then do a simple average. This is your course grade to date. Note your grade in the numeric/letter equivalence chart below.

*Grading Policy:*

A	4.0	93-100	C	2.0	73-76
A-	3.7	90-92	C-	1.7	70-72
B+	3.3	87-89	D+	1.3	67-69
B	3.0	83-86	D	1.0	60-66
B-	2.7	80-82	F	0.0	0-59
C+	2.3	77-79			

**Course Average:** \_\_\_\_\_

**Letter Grade:** \_\_\_\_\_

## Exam Taking Rules

Here is a set of Rules regarding taking exams:

### *Things you may NOT do:*

- Look at another students exam
- Go to the bathroom
- Have any electronic devices in hand/lap or in operation
- Nothing may be on desk - water bottles, papers, hats ETC.
- After an exam is complete, if you leave the room, do not reenter until the rest of the class is finished
- If a key of the exam is posted, this may not be photographed
- Cheat ( Dah !! )

### *Things you may do:*

- Put down the correct answers
- Hold it, until the exam is over.
- Look at your own exam
- Look at me (I'll smile)

### *What if you:*

- Look at another students exam: Exam is dropped / 0
- Go to the bathroom during exam: Exam is dropped / 0
- Have electronic devices in hand/lap (even if they are off):  
Exam is dropped / 0
- Have on desk water bottles, papers, hats ETC:  
Exam is dropped / 0
- Cheat: Exam is dropped / 0

Exams are “open brain” not “open book”: **STUDY HARD !!!**

Students who study hard and know the material well, often enjoy the exams - a reward and confirmation of hard work, and a job well done.