COURSE TITLE: BIO 202 (55337)  
Human Anatomy and Physiology II

INSTRUCTOR: Shawn Hurley, Ph.D.  
e-mail: sp.hurley@yahoo.com

Course Website: www.hurleybiology.com

Class meeting times: T/Th 9:00 am – 2:40 pm

Office hours: Scheduled by appointment (email to arrange time)

CREDIT: 4.5 Quarter Units

TEXTS:  
Principles of Anatomy & Physiology, 14th edition  
Tortora, G. and Derrickson, B (Wiley, 2014)  
Laboratory Man. for Anatomy. (Looseleaf) - With Access,  

Pre-requisite:
National University's goal is for all students to achieve their academic potential, and to have a positive learning experience in the BIO 201-203 series. Department of Mathematics and Natural Sciences has developed advice for students for the courses BIO 201-203. The purpose of this advice is to ensure that students are properly prepared for the materials in these courses. The Department's advice to students is:

1. Health Science and Pre-Nursing students that are new to National University should take the Areas A-E program requirements (e.g. ENG 100, ENG 101, COM 200, ILR 260) before taking BIO 201-203. This will enable students to adjust to the pace of National University, while strengthening their written communication and exam skills.

2. Before taking BIO 201-203, students should have taken introductory biology and chemistry (BIO 100, 100A, 101, 101A), or the equivalent, within the past 5 years.

3. Students should take BIO 201-203 in the numerical sequence. This scheme familiarizes students with the laboratory before taking BIO 203, which is the most laboratory intensive course.

Diagnostic Self Test

Following are terms and concepts that you should be familiar with from previous science courses. If you are not able to explain these terms, or if they are completely unfamiliar, then this is a strong indication that you need to take lower level biology before enrolling in BIO 201-203.

Diffusion / Osmosis

pH scale: acids, bases

Cell structures: cytoplasm, cell membrane, nucleus, DNA, RNA, mitochondria, ribosomes,

Cell division: mitosis and meiosis

Cellular respiration; organelles, enzymes, neurotransmitters, hormones, ions, action potential, etc.
Course Description
Areas of study include cells, tissues, organ systems (endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive), and their functional relation to each other. Topics also include the aging process and diseases in these systems, as well as the effects of genetics, diet, lifestyle, and the environment.

Learning Outcomes
• Explain the mechanisms of signal transduction in the endocrine system
• Describe the physiology of the cardiovascular system, including pressure/volume relationships in the heart, as well as cardiac output, blood flow, and blood pressure physiology.
• Identify the functions of blood components and their composition, also the value of human blood groups.
• Describe the functioning of the lymphatic and immune systems
• Describe the physiology of the respiratory system, including gas laws as they pertain to lung ventilation and diffusion between the air and the blood
• Describe the anatomy and functioning of the digestive system, including metabolism and nutrition
• Explain the physiology of the renal system, including secretion, reabsorption, filtration, and excretion

Describe the anatomy and physiology of the male and female reproductive system

COURSE CONTENT:
1. Cardiovascular System
2. Lymphatic & Immune System
3. Respiratory System
4. Digestive System
5. Endocrine System
6. Urinary System
7. Reproductive System

TEACHING BY THE INSTRUCTOR WILL BE AIDED WITH:
1. The textbook
2. Written notes, including current newspaper and magazine information, for the students
3. Writing on the white board/black board
4. Use of PowerPoint/Proxima
5. Use of videos
6. Use of transparencies
7. Wall charts and other visual aids
8. Questions from the students – Questions often end up with many in-depth discussions.

COURSE REQUIREMENTS AND STUDENT RESPONSIBILITIES:
• Attend all class sessions and participate in each class activity.
• Read the assigned textbook chapters prior to each class meeting.
• Complete all written assignments on time and each exam as scheduled.
• Evaluate the course and your own individual performance.
INSTRUCTOR POLICIES

There will be no texting or recreational use of cell phones in class. If you must take a message, please wait until break or leave the class. Students seen texting will be asked to turn off their phone or leave the class. Computers are to be used only for the class. Students using the computers for other purposes will be asked not to bring computers to class. If students are going to be absent, please notify the instructor. If notifying by email, please include your name. Travel arrangements, appointments, etc. should not conflict with exams, quizzes, or homework due dates – students will be expected to fulfill their obligations for assigned dates. Absolutely no late work will be accepted – “late” means not handing in/presenting materials when they have been asked for. Make-up opportunities will not be given – no exceptions. Additionally, NO early exams/quizzes will be given.

ATTENDANCE PROCEDURES:

Students are expected to attend all class sessions. An absence is assessed each time a student is not in attendance during a regularly scheduled class period, whether or not it is an excused absence. An instructor may withdraw a student from class prior to the seventh session in undergraduate courses if there are more than two unexcused absences. Students who have more than three absences, excused or unexcused, cannot be given a satisfactory grade.

GRADE DISTRIBUTION:

Point Break-down

<table>
<thead>
<tr>
<th>Component</th>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (3 @ 100 pts each)</td>
<td>300 pts</td>
</tr>
<tr>
<td>Quizzes (3 @ 20 pts each)</td>
<td>60 pts</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>40 pts</td>
</tr>
<tr>
<td>Summation of Points Possible</td>
<td>400 pts</td>
</tr>
</tbody>
</table>

CLOSED BOOK EXAMS:

These involve multiple choice, true false, matching, fill-in-the-blank and short answer questions.

HOMEWORK and QUIZZES:

There will be assignments given worth variable points to be completed at home. Many of these will be short answer and may require research outside the text. Late work will not be accepted. There will be quizzes of fill-in-the-blank, true/false, matching and/or multiple choice.

Make-Up Policy: If you miss a quiz or a test because of a valid medical excuse and you have an acceptable written medical excuse you may be allowed to make up the test. The student who, for a valid medical reason, realizes he/she cannot take the test as scheduled must notify me in advance of the test. Students, who notify me after the test, will not be allowed to make up the test. Missed tests without such an excuse will be assigned a grade of zero.
GRADES AND GRADING SYSTEM:

A  94-100   C+  77-79   D+  67-69
A-  90-93   C   74-76   D   64-66
B+  87-89   C-  70-73   D-  60-63
B   84-86
B-  80-83   F   00-59

Definition of Grades (Undergraduate Level):

A  Outstanding Achievement:  Significantly exceeds standards
B  Commendable Achievement:  Exceeds standards
C  Acceptable Achievement:   Meets standards
D  Marginal Achievement:     Below standards
F  Failing
I  Incomplete:  A grade given when a student has completed at least 2/3 of the course class sessions and is unable to complete the course requirements due to uncontrollable and unforeseen circumstances. The student must convey (preferably in writing) these circumstances to the instructor prior to the final day of the course. If the instructor decides that an “Incomplete” is warranted, the instructor must convey the conditions for removal of the “Incomplete” to the student in writing. A copy must also be placed on file with the Office of the Registrar until the Incomplete is removed or the time limit for removal has passed. An “Incomplete” is not assigned when the only way the student could make up the work would be to attend a major portion of the class when next offered. An “Incomplete” must be removed no later than the second complete quarter following the original course completion date, but may be for a shorter period at the discretion of the instructor. An “I” not removed within the stipulated time becomes an “F”. No grade points are assigned. The “F” will be calculated in the grade point average.

PLUS/MINUS GRADING:

National University utilizes a plus/minus grading system. The grades of A+, F+, and F- are not issued. The grade points per credit used in the calculation of the grade point average are as follows:

Grade Points per Credit

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

GRADING CRITERIA:

Written work will be graded using the following:
1. completeness and/or correctness of your answer
2. organization and development of your ideas
3. use of data/experience to support your ideas
4. use of references to substantiate your ideas
5. evidence of critical thinking in expressing your judgment
6. good grammar and correct spelling
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**Recommendations to improve the quality of your written work include:**

- Cite references in your text and at the end of your work
- Pictures/drawings should be identified and of professional quality
- Use of credible scientific references in your work with appropriate citation.
- Clearly identify your own critical analysis and evaluation of the ideas presented – let us see good thought process
- Where appropriate, describe your own relevant experience
- Separate different ideas by paragraphs, but use transitions that allow the material to *flow* coherently

**WRITING STANDARDS OF COLS:**

Students are expected to demonstrate writing skills in describing, analyzing and evaluating ideas and experiences. Written material must follow specific standards regarding citations of authors’ work within the text and references at the end of the paper. Students are encouraged to use the services of the University’s Writing Center when preparing materials. Grades will be assigned for written material in accordance with the University catalog and the following general criteria adopted by the College of Letters and Sciences (COLS).

The following website provides information on APA, MLA and other writing and citation styles that may be required for term papers and the like:


**NU LIBRARY STATEMENT:**

The NU Library System (NULS) supports academic rigor by providing access to scholarly books, journals, e-books, and databases of all text articles from scholarly journals. Library books and journal articles can be shipped to online students. Librarians are available to assist students at the Spectrum Library in San Diego, at regional Library Information Centers (LIC), and online.

**The National University Online Writing Center is available to help with all your writing needs.**

- Make an appointment by going to [http://tutor.nu.edu](http://tutor.nu.edu)
- Email the online writing center at wonline@nu.edu if you have a quick question, or after you’ve made an appointment.
- Check out the Writing Center web pages for other useful information: [http://www.nu.edu/Academics/StudentServices/WritingCenter.html](http://www.nu.edu/Academics/StudentServices/WritingCenter.html)

**Library Electronic Resources:**

The NU Library System (NULS) purchases access to several databases of full text articles from scholarly journals. Go to [http://www.nu.edu/libaray](http://www.nu.edu/libaray) and click on “Electronic Resources”.

**PLAGIARISM:**

Plagiarism is the presentation of someone else’s ideas or work as one’s own. Students must give credit for any information that is not either the result of original research or common knowledge. If a student borrows ideas or information from another author, he/she must acknowledge the author in the body of the test and on the reference page. Students found plagiarizing are subject to the penalties outlined in
Course Syllabus

the Policies and Procedures section of the University Catalog, which may include a failing grade for the work in question or for the entire course. The following is one of many websites that provide helpful information concerning plagiarism for both students and faculty:


Ethics:
Ethical behavior in the classroom is required of every student. Students are also expected to identify ethical policies and practices relevant to course topics.

Technology:
Students are expected to be competent in using current technology appropriate for this discipline. Such technology may include word processing, spreadsheet and presentation software. Use of the internet and e-mail may also be required.

Diversity:
Learning to work with and value diversity is essential in every class. Students are required to exhibit an appreciation for the multinational and gender diversity in the classroom.

Civility:
As a diverse community of learners, students must strive to work together in a setting of civility, tolerance and respect for each other and for the instructor. Rules of classroom behavior (which apply to online as well as onsite courses) include but are not limited to the following:

- Conflicting opinions among members of a class are to be respected and responded to in a professional manner.

- Side conversations or other distracting behaviors are not to be engaged in during lectures, class discussions or presentations.

- There are to be no offensive comments, language or gestures.

Students with Disabilities:
Students seeking special accommodations due to a disability must submit an application with supporting documentation, as explained under this subject heading in the General Catalog.

Instructors are required to provide such accommodations if they receive written notification from the University.

* The contents of this outline and syllabus are subject to change throughout the duration of the course.
# Course Syllabus

**Biology 202 Schedule** *(Dr. Hurley) – Oct/Nov 2017 (55337)*

<table>
<thead>
<tr>
<th>Class Week</th>
<th>Date/Day</th>
<th>Lecture Topics (Tues/Thurs)</th>
<th>Tortora (14th edition)</th>
<th>Lab Topic (Tues/Thurs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oct 3 T</td>
<td>Cardiovascular System – Blood</td>
<td>Ch. 19</td>
<td>Lab Exercise 26</td>
</tr>
<tr>
<td>1</td>
<td>Oct 5 Th</td>
<td>Cardiovascular System – The Heart</td>
<td>Ch. 20</td>
<td>Lab Exercise 27 &amp; 28</td>
</tr>
<tr>
<td>2</td>
<td>Oct 10 T</td>
<td>Cardiovascular System – Blood Vessels <em>Quiz 1 (Chpt. 19 &amp; 20)</em></td>
<td>Ch. 21</td>
<td>Lab Exercises 29 &amp; 30</td>
</tr>
<tr>
<td>2</td>
<td>Oct 12 Th</td>
<td>The Lymphatic System</td>
<td>Ch. 22</td>
<td>Lab Exercise 31</td>
</tr>
<tr>
<td>3</td>
<td>Oct 17 T</td>
<td>Immunity</td>
<td>Ch. 22</td>
<td><em>Lab Exam 1 (Exercises 26-31)</em></td>
</tr>
<tr>
<td>3</td>
<td>Oct 19 Th</td>
<td>-Exam 1 (Chpt. 19-22) The Respiratory System</td>
<td>Ch. 23</td>
<td>Lab Exercise 32</td>
</tr>
<tr>
<td>4</td>
<td>Oct 24 T</td>
<td>The Respiratory System</td>
<td>Ch. 23</td>
<td>Lab Exercise 33</td>
</tr>
<tr>
<td>4</td>
<td>Oct 26 Th</td>
<td>Digestive System</td>
<td>Ch. 24</td>
<td>Lab Exercise 34</td>
</tr>
<tr>
<td>5</td>
<td>Oct 31 T</td>
<td>*Quiz 2 (Chpt. 23 &amp; 24) Metabolism &amp; Nutrition</td>
<td>Ch. 25</td>
<td>Lab Exercise 35</td>
</tr>
<tr>
<td>5</td>
<td>Nov 2 Th</td>
<td>Endocrine System</td>
<td>Ch. 18</td>
<td><em>Lab Exam 2 (Exercises 32-35)</em></td>
</tr>
<tr>
<td>5</td>
<td>Nov 4 Sat</td>
<td>-Exam 2 (Chpt. 23-25) Endocrine System</td>
<td>Ch. 18</td>
<td>Lab Exercise 25</td>
</tr>
<tr>
<td>6</td>
<td>Nov 7 T</td>
<td>Urinary System</td>
<td>Ch. 26</td>
<td>Lab Exercise 36</td>
</tr>
<tr>
<td>6</td>
<td>Nov 9 Th</td>
<td>*Quiz 3 (Chpt. 18 &amp; 26) Fluid, Electrolyte, &amp; Acid-Base Homeostasis</td>
<td>Ch. 27</td>
<td>Lab Exercises 37 &amp; 38</td>
</tr>
<tr>
<td>7</td>
<td>Nov 14 T</td>
<td>Reproductive System</td>
<td>Ch. 28</td>
<td>Lab Exercise 39</td>
</tr>
<tr>
<td>7</td>
<td>Nov 16 Th</td>
<td>Reproductive System</td>
<td>Ch. 28</td>
<td><em>Lab exam 3 (Exercises 25, 36-39)</em></td>
</tr>
<tr>
<td>8</td>
<td>Nov 21 T</td>
<td>-Exam 3 (Chpt. 18, 26-28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Nov 23 Th</td>
<td>Holiday - Thanksgiving</td>
<td>No Class</td>
<td>No Lab</td>
</tr>
</tbody>
</table>

* - Schedule is subject to change