Course Number: Biology 2445 – A (1051)
Course Name: Anatomy and Physiology 1
Semester: Fall 2016

Instructor Name: Dr. Olufisayo Jejelowo
E-mail: jejeloo@stthom.edu
Office Hours: T 12.15 – 1:15 pm
Meeting Location: Strake 102


Prerequisites: General knowledge of General BIOL 1408 or BIOL 1406 is helpful. Prerequisites: MATH 0308; ENGL 0305 or ENGL 0365 AND ENGL 0307 or ENGL 0375 OR higher level course (ENGL 1301) OR placement by testing

Catalog Description: (4 credit hours)
A study of the structure and function of the human body. Emphasis will be given to the study of cells and tissues and anatomical and physiological interrelationships of the skeletal, muscular, nervous, and endocrine systems. Designed primarily for students entering health careers.

Biol. 2445 is a combination of both a lecture and a laboratory course. You will be required to complete laboratory reports, outside homework, fieldwork, reading and preparation for every class.

Purpose:
This course is the first half of a two-semester course, which will help to satisfy human anatomy and physiology requirements for pre-medical, pre-dental, and other health related programs.

Communication Policy: Email is a good way to communicate with me. Please indicate the email SUBJECT with: BIOL 2445 - A (1051) your first and last name. If you do not get a response to your email from me within 24 hours Mon-Fri, or within 48 hours on the weekend, please resend. I encourage you to send your emails as soon as possible when asking questions about assignments with a deadline.
Learning Outcomes: Upon successful completion of this course, students will...

1. Describe and practice all lab safety precautions.
2. Identify important anatomical structures in the integumentary, skeletal, muscular, nervous, and endocrine systems on laboratory models, diagrams, and/or dissection specimens.
3. Demonstrate skills in basic microscopy and identify various cells and tissues.
4. Apply the principles of chemistry to the human body.
5. Examine the interrelationships between anatomy and physiology in each of the covered organ systems.
6. Explain the principle of homeostasis and the major control mechanisms for maintaining homeostasis.
7. Analyze the interactions of the organ systems in maintaining homeostasis in the human body.
8. Use a vocabulary of anatomical and medical terms relative to the human body.
9. Employ productive teamwork in laboratory activities.

Course Materials:


Mastering A and P Course ID: MAPJEJELOWO66109


Purchasing Books: There are two main ways to get the course materials:

1. Physically go to the University Bookstore – The University of St. Thomas Bookstore has all of the books that you need for this course.
2. Order your books online – Go to http://www.bkstr.com/webapp/wcs/stores/servlet/StoreCatalogDisplay?storeId=10505&langId=-1&catalogId=10001 and follow the links.

Evaluation: Your grade in this course will be determined according to the following formula: 1000 points possible
Unit exams (40%) 400 points; In class Assignments and Discussion (10%) 100 points; 
Laboratory (25%) 250 points; Mastering anatomy and Physiology (10%) 100 points; Final Exam 
(15%) 150 pts. = 1000 points 

A = 90%-100% (895 -1000 points) 
B = 80%-89% (795-894 points) 
C = 70%-79% (695 – 794 points) 
D = 60%-69% (595 – 694 points) 
F = 59% and below (594 points and below) 

Attendance and participation: 

Regular attendance will help you to learn and pass the course. Therefore, attendance will be 
taken during each class meeting. Students are required to participate in various group activities. 
Part of your grade will be determined based on your participation in these activities and you are 
encouraged to do your best. Missing three consecutive classes without contacting the professor 
could result in blockage of D2L classroom access. 

Under Section 51.907 of the Texas Education Code, “An institution of higher education may not 
permit a student to drop more than SIX (6) courses, including any course a transfer student has 
dropped at another Texas public institution of higher education.” This statute was enacted by the 
State of Texas in spring 2007 and applies to students who enroll in a public institution of higher 
education as first-time freshmen in the fall 2007 semester or later. Students enrolled prior to fall 
2007 are not affected. Any course that a student drops is counted toward the six-course limit 
unless the student is completely withdrawing from the institution or meets one of the criteria 
required for a waiver. A “drop” in this instance is considered when a student is dropped or 
withdrawn from a course after official day resulting in a grade of “W.” Eligible criteria for a 
waiver include a) change of work schedule prohibiting attendance, b) active military, c) severe 
illness or debilitating condition, d) death of a family member, e) class cancellation, and f) 
complete withdrawal. Developmental Studies courses do not apply to this rule. 

Last day to withdraw from class without a grade of F: is November 18, 2016 

Late and makeup work: ALL CLASSWORK MUST BE SUBMITTED BY THE DUE 
DATE. NO LATE WORK WILL BE ACCEPTED. 

Class Policy: Respect self, classmates and professor. 

Academic Integrity:
The University of Saint Thomas, Houston upholds the core values of learning: honesty, respect, fairness, and accountability. The university promotes the importance of personal and academic honesty. The university embraces the belief that all learners—students, faculty, staff, and administrators—will act with integrity and honesty and must produce their own work and give appropriate credit to the work of others. Fabrication of sources, cheating, or unauthorized collaboration is not permitted on any work submitted with the system.

The consequences for academic dishonesty are determined by the professor, or the professor and department chair, or the professor and senior administrative officers and can include but are not limited to:

1. Having additional class requirements imposed
2. Receiving a grade of zero or “F” for an exam or assignment
3. Receiving a grade of “F” for the course
4. Being withdrawn from the course or program
5. Being expelled from the University

Any alleged violation or flagrant disregard of UST rules and regulations shall be brought to the attention of the chair and dean, who will initiate an investigation of the situation. After a complete and thorough investigation, the dean will determine the course of action. Discipline may result in expulsion. The decision of the administrator may be appealed to the University discipline committee. The complete discipline policy may be found online at [http://www.stthomas.edu/catalog/general/undergraduatepolicies/academicintegrity/](http://www.stthomas.edu/catalog/general/undergraduatepolicies/academicintegrity/)

**No children are allowed in classes.**

**Equal Opportunity Statement:**

It is the policy of the University of Saint Thomas to maintain a work and academic environment that is free of discriminatory actions based on race, color, gender, age, sexual orientation, religion, ethnic or national origin, disability, veterans’ status, or any other protected status, and free of sexual discrimination, which includes sexual harassment and sexual violence. Unlawful discrimination and sexual discrimination by officers, managers, faculty, supervisors, employees, students, advisors, vendors, clientele, and contractors will not be tolerated. Persons who violate such are subject to disciplinary action up to and including termination of employment, expulsion and/or termination of the contractual relationship. Inquiries concerning UST’s policies, compliance with applicable laws, statues, and regulations (such as Title VI, Title IX and Section 504) may be directed to the Office of the System General Counsel and Chief Legal Officer.

Complaints of discrimination, including Title IX should be addressed to the director of the Office of Human Resources who is the Equal Employment Officer and Title IX investigator. Inquiries
about the laws and compliance may also be directed to the Office of Civil Rights with the U.S. Department of Education.

**Americans with Disabilities (ADA) Statement:**
The University of Saint Thomas is dedicated to providing the least restrictive learning environment for all students. UST promotes equity in academic access through the implementation of reasonable accommodations as required by the Vocational Rehabilitation Act of 1973, Title V, Section 504 and the Americans with Disabilities Act of 1990 (ADA), which will enable students with disabilities to participate in and benefit from all post-secondary educational programs and activities. If you require reasonable accommodations because of a physical, mental, or learning disability, please notify the instructor of this course within the first two weeks of the term.

**Veteran Statement:**
For more information on Veteran’s Affairs click here Veterans' Affairs Office or visit the Veteran’s Office on campus.

**FERPA Statement:**

**Student Consumer and Safety Information:**
A comprehensive list of helpful website links and information is available at [http://www.stthom.edu/About/Consumer_Information/Consumer_Information.aqf](http://www.stthom.edu/About/Consumer_Information/Consumer_Information.aqf) for student reference.

**Emergency Procedures:**
University of St. Thomas is committed to providing a safe environment in which to learn, study, and work. Knowing what to do is your best protection and your responsibility. In the event of a health, safety, or environmental emergency while on campus, students should immediately contact UST police at Ext. 3888 from any campus phone or 713-525-3888 or the administrator on duty. Emergency Call Boxes are located throughout the campus [http://www.stthom.edu/Public/getFile.asp?File_Content_ID=100866](http://www.stthom.edu/Public/getFile.asp?File_Content_ID=100866). Detailed information on UST emergency procedures is available at [http://www.stthom.edu/Campus_Student_Life/University_Police_Department/Index.aqf](http://www.stthom.edu/Campus_Student_Life/University_Police_Department/Index.aqf)

**Mastering A and P Course ID:** MAPJEJELOWO66109
# COURSE SCHEDULE

## Unit 1: Levels of Organization

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An Introduction to Anatomy and P</td>
<td>1</td>
<td>Body Organization and Terminology / Care and Use of the Compound Light Microscope</td>
</tr>
<tr>
<td></td>
<td>Physiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The Chemical Level of Organization</td>
<td>2</td>
<td>Cell Structure and Cell Division</td>
</tr>
<tr>
<td>3</td>
<td>The Cellular Level of Organization</td>
<td>3</td>
<td>Cell Membrane Transport</td>
</tr>
<tr>
<td>4</td>
<td>The Tissues Level of Organization</td>
<td>4</td>
<td>Tissues</td>
</tr>
</tbody>
</table>

### Exam I

## Unit 2: Support and Movement

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>The Integumentary System</td>
<td>5</td>
<td>The Integumentary System</td>
</tr>
<tr>
<td>6</td>
<td>Osseous Tissue and Bone Structure</td>
<td>6</td>
<td>Introduction to the Skeletal system</td>
</tr>
<tr>
<td>7</td>
<td>The Axial Skeleton</td>
<td>7</td>
<td>The Axial Skeleton</td>
</tr>
<tr>
<td>8</td>
<td>The Appendicular Skeleton</td>
<td>8</td>
<td>The Appendicular Skeleton</td>
</tr>
<tr>
<td></td>
<td>Joints</td>
<td>9</td>
<td>Articulations</td>
</tr>
</tbody>
</table>

### Exam II

## Unit 2: Support and Movement

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Muscle Tissue</td>
<td>10</td>
<td>Introduction to the Skeletal Muscle/Muscles of the Head, Neck and Trunk</td>
</tr>
<tr>
<td>10</td>
<td>The Muscular System</td>
<td>11</td>
<td>Muscles of the upper and lower limbs/Physiology of the muscular system</td>
</tr>
</tbody>
</table>

### Exam III

## Unit 3: Control and Regulation

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Neural Tissue</td>
<td>12</td>
<td>Nervous Tissue</td>
</tr>
<tr>
<td>12</td>
<td>The Spinal Cord, Spinal Nerves and</td>
<td>13</td>
<td>The Brain and Cranial Nerves</td>
</tr>
<tr>
<td></td>
<td>Spinal Reflexes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The Brian and Cranial Nerves</td>
<td>14</td>
<td>The Spinal Cord and Spinal Nerves</td>
</tr>
</tbody>
</table>

### Exam IV

## Unit 3: Control and Regulation

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
<th>Lab Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Sensory Pathways and the Somatic</td>
<td>15</td>
<td>The Spinal Cord and Spinal Nerves</td>
</tr>
<tr>
<td></td>
<td>Nervous System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>The Autonomic Nervous System and</td>
<td>16</td>
<td>Human Reflex Physiology</td>
</tr>
<tr>
<td></td>
<td>Higher Order Functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>The Special Senses</td>
<td>17</td>
<td>Special Senses</td>
</tr>
</tbody>
</table>

### Final Exam

- **Final Exam (Laboratory)** Tuesday, December 13, 2016 from 08:00 – 10:30 pm
- **Final Exam (Lecture)** Tuesday, December 13, 2016 from 11:00 – 12:15 pm