PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

HUMAN ANATOMY & PHYSIOLOGY II
BIO 2320

Class Hours: 3.0
Laboratory Hours: 3.0
Credit Hours: 4.0
Date Revised: Spring 00

Catalog Course Description:
A study of the anatomy and physiology of blood, the circulatory, immune, respiratory, digestive, excretory, endocrine and reproductive systems.

Entry Level Standards:
Eligible for enrollment in ENG 1010 and DSM 0840

Prerequisite:
BIO 2310

Textbook(s) and Other Reference Materials Basic to the Course:

Textbook:

Laboratory Manual:

I. Week/Unit/Topic Basis:

<table>
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<th>Week</th>
<th>Topic</th>
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| 1    | Lecture: Endocrine System, Ch.17  
Lab: Endocrine System, Ex. 27 |
| 2    | Lecture: Heart, Ch. 19  
Lab: Heart Anatomy, Cardiac Cycle, Ex. 30,31 |
| 3    | Lecture: Heart and Blood Vessels, Ch 19, 20.  
Lab: Blood Vessels, Ex. 32 |
| 4    | Lecture: Blood Vessels, Ch. 20 cont.  
Lab: Blood Pressure and Pulse, Ex. 34 |
| 5    | Lecture: Blood, Ch 18  
Lab: Practical 1 |
| 6    | Lecture: Blood, Ch 18 cont. |
Lecture: Lymphatic and Immune Systems, Ch 21,22
Lab: Lymphatic and Immune Systems, Ex. 36

Lecture: Immune System, Ch 22 cont.
Lab: Respiratory System, Ex. 37,38

Lecture: Respiratory System, Ch. 23
Lab: Digestive System, Ex. 39

Lecture: Digestion, Ch 24
Lab: Digestive System, Ex. 39 cont., Review

Lecture: Metabolism, Ch. 25 (pg. 937-47)
Lab: Practical 2

Lecture: Urinary System, Ch. 26
Lab: Urinary System, Ex. 41,42

Lecture: Fluid, Electrolyte and Acid Base Balance, Ch. 27
Lab: Reproductive System, Ex. 43, 44

Lecture: Reproduction, Ch. 28
Lab: Human Development, Ex. 45

Lecture: Human Development, Ch. 29
Lab: Practical 3

Lecture: Comprehensive Final
Lab: No lab

II. Course Objectives*:

A. Understand the relationship between cells, tissues, organs, and systems. I.5
B. Understand the relationship between structure and function for each system covered. I.5
C. Exhibit knowledge regarding the anatomy and physiology of the human systems covered. I.5
D. Understand the homeostatic control of the human systems covered. I.5
E. Understand how the systems covered function holistically to control the functioning of the human body. I.5
F. Understand the relationship between abnormal anatomy and/or physiology and health-related problems. III.2
G. Use medical resources to aid in the analysis of medical data and determination of a diagnosis and treatment of some health problems. III.2, VI.1
H. Understand various laboratory techniques and equipment common to the study of anatomy and physiology. I.5

*Roman numerals after course objectives reference goals of the Natural and Behavioral Sciences department.
III. Instructional Processes*:

Students will:

1. Use critical thinking to solve medical case histories and other related problems. *Problem Solving and Decision Making Outcome, Communication Outcome*

2. Locate and become more proficient at using medical resources in the library and on the world wide web. *Information Literary Outcome, Technological Literacy Outcome*

3. Participate in group activities to facilitate cooperative learning. *Active Learning Strategies*

4. Use related laboratory equipment and tools for making physiological measurements and observations. *Technological Literary Outcome, Numerical Literacy Outcome*

5. Develop a body of knowledge that helps ensure success in upper-level health-related classes and careers. *Transitional Strategy, Personal Development Outcome*

*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Explain the anatomy and physiology of the following systems: C,A,B
   - Endocrine
   - Cardiovascular
   - Immune
   - Lymphatic
   - Respiratory
   - Digestion
   - Urinary
   - Reproductive

2. Explain the homeostatic mechanisms involved in controlling the systems above. D

3. Describe how many of the body systems work holistically to control the functioning of the body. E

4. Interpret and analyze simple medical data. F,G

5. Consult leading medical references to aid in the understanding the diagnosis and treatment of health problems. F,G

6. Use the compound microscope to examine tissues and recognize various structures of tissues. H,C,A

7. Identify various anatomical parts on pictures, models and the cadaver. C,H,A

8. Perform various laboratory techniques, such as white blood cell count and urinalysis, successfully. H
*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures: 75% of grade

There will be 7 lecture exams including a comprehensive final exam, and 3 laboratory practical exams. The lecture exams will be a mix of short answer and multiple choice questions, while the laboratory practical exams will be all short answer exams. All lecture exams are worth 100 points and all laboratory practical exams are worth 60 points. There will be NO MAKE-UP EXAMS given. If all exams are attempted, the lowest exam score will be dropped. If for any reason an exam is not attempted, that exam will be used as the drop exam. However, the comprehensive final exam must be attempted and cannot be dropped. There will be 150 points of quizzes and/or homework given throughout the semester in lecture.

Exam Ch. 17 = 100 pts.
Exam Ch. 19,20 = 100 pts.
Exam Ch. 18,21,22 = 100 pts.
Exam Ch. 23,24,25 = 100 pts.
Exam Ch. 26,27 = 100 pts.
Exam Ch. 28,29 = 100 pts.
Quizzes/Assignments =150 pts.
Comprehensive Exam = 100 pts.

Lecture is worth 750 points or 75% of the grade.

B. Laboratory Expectations: 25% of grade

Students are expected to attend lab every week and complete the laboratory activities assigned to each lab as noted on the laboratory handouts. Student work will be checked by the lab instructor before the student may leave the laboratory each week. Completed laboratory handouts are worth 8% of the lab grade. Also, students are to complete case histories each week and turn into the lab instructor. The case histories are worth 20% of the lab grade. The remainder of the laboratory grade is earned on the laboratory practical exams worth 72% of the lab grade.

Practical 1 = 60 pts.
Practical 2 = 60 pts.
Practical 3 = 60 pts.
Case Studies = 50 pts.
Lab Handouts = 20 pts.

Laboratory is worth 250 points or 25% of the grade.

C. Field Work:

Case Histories assigned in laboratory require research using reference books in the library or on the World Wide Web. A list of suggested references will be handed out during the beginning of the semester.

D. Other Evaluation Methods:

Extra Credit: There may be a total not exceeding 4% of possible lecture points (30 points) offered in lecture and a total not exceeding 4% of possible laboratory points
(10 points) offered in laboratory.

E. Grading Scale:

There will be a total of 1000 points offered in the course (750 pts. in lecture, 250 pts. in laboratory). In order to pass the course, the student must earn 60% of the points offered in both lecture and laboratory sections of the course. If this has been achieved, then the points earned from lecture and laboratory will be added together and compared to the following grading scale:

- 900-1000 points (90%-100%) = A
- 870-899 points (87-89.9%) = B+
- 800-869 points (80-86.9%) = B
- 770-799 points (77-79.9%) = C+
- 700-769 points (70-76.9%) = C
- 600-699 points (60-69.9%) = D
- 599 or less points (<60 %) = F

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course.

B. Academic Dishonesty:

Plagiarism or cheating will not be tolerated. Students will receive a zero for the assignment. A second offense will result in automatic failure of the course.

C. Other Policies:

Visitors: No visitors are allowed in lecture or laboratory unless given permission by the instructor.