

Course Prefix/Number:	BIO 211
Course Title:	Anatomy and Physiology II
Lecture Hours Per Week:	3.0
Lab Hours Per Week:	3.0
Credit Hours Per Semester:	4.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This is a continuation of a sequence of courses, including an intensive coverage of the body as an integrated whole. All body systems are studied.

COURSE/MODULE COMPETENCIES

The student will be given instruction and appropriate laboratory materials. Upon successful completion of this course, the student should be competent to perform the following tasks:

Module 1: Endocrine System and Cardiovascular Anatomy

- Cite major differences between prostaglandins and hormones, the mechanism and importance of hormone action, and the functions, target organs, and control of hormones produced by the major endocrine organs; laboratory activities include:
 1. Using torsos to locate the major endocrine glands of the human body.
 2. Dissecting a preserved cat to locate major endocrine glands which correspond to major human endocrine glands.
- Determine the functions and components of whole blood, diseases associated with blood cells, the major human blood types, and the mechanism of blood coagulation; laboratory activities include:
 1. Typing samples of blood.
 2. Using the microscope to observe and draw a prepared blood smear.
- Recognize the anatomy of the heart and major blood vessels of the human body, and trace the path of blood through systemic, pulmonary, portal, and fetal circulations; laboratory activities include:
 1. Using heart models and torsos to locate the major structures of the human heart and the major blood vessels of the human body.
 2. Dissecting a sheep heart and preserved cats to locate the major heart structures and blood vessels which correspond to major human heart structures and blood vessels.

Module 2: Cardiovascular Physiology, Lymphatic and Respiratory Systems

- Demonstrate a practical knowledge of heart physiology, control of circulation, blood pressure, and pulse.
- Correlate the lymphatic system in terms of structure and function.
- Identify the component parts of the upper and lower respiratory tract, relating structure to function; laboratory activities include:
 1. Using torsos and respiratory models to locate the major structures of the human respiratory system.
 2. Dissecting preserved cats to locate major respiratory structures which correspond to major human respiratory structures.

- Demonstrate a practical knowledge of the fundamental processes involved in respiratory physiology, including pulmonary ventilation, gas exchange, gas transport, and regulation of respiration; laboratory activities include conducting various experiments which relate to respiratory physiology.

Module 3: Digestive System and Metabolism

- Examine the basic anatomy of the main and accessory organs of digestion, including modifications which occur in digestive organ walls; laboratory activities include:
 1. Using torsos to locate the major structures of the human digestive system.
 2. Dissecting preserved cats to locate major digestive structures which correspond to major human digestive structures.
- Cite the major processes involved in mechanical and chemical digestion, including control of digestive gland secretion and absorption; laboratory activities include conducting various experiments which relate to mechanical and chemical digestion as well as absorption.
- Correlate the basic principles of metabolism to the metabolism of carbohydrates, fats, and proteins; laboratory activities include conducting experiments relating to the metabolism of various foods.
- Determine rates of metabolism and mechanisms for regulating food intake; laboratory activities include obtaining an estimate of basal rate of metabolism.

Module 4: Urinary and Reproductive Systems

- Correlate the structure and function of the component parts of the urinary system, including processes involved in urine formation; laboratory activities include:
 1. Using torsos and kidney models to locate the major structures of the human urinary system.
 2. Dissecting pig kidneys to locate major urinary structures which correspond to major human urinary structures.
- Identify the essential and accessory organs of the male and female reproductive system, relating structure to function; laboratory activities include:
 1. Using torsos and reproductive models to locate the major structures of the male and female reproductive system.
 2. Dissecting preserved cats to locate major structures of the male and female reproductive system which correspond to major human male and female reproductive structures.
- Recognize the cyclical changes which occur each month in the female reproductive system, including how these cycles are controlled.

MINIMAL STANDARDS

Minimal standards of performance on all course competencies for receiving credit for the course are indicated by 70 percent accuracy for all nursing, dental hygiene, and college transfer students on evaluation instruments (see evaluation strategies) which address the performance objectives listed above.

LECTURE ATTENDANCE POLICY

Students are responsible for attending meetings in the course until they have completed all course requirements. Students are responsible for all material covered and for all assignments made in all classes. Students who are absent from a course more than 10 percent of the total contact hours assigned may be withdrawn. Since BIO 211 has a total of 48 contact hours for lecture, any student who is absent from lecture 5 contact hours will be dropped in accordance with the York Technical College attendance policy. See Instructor's Individual Policy for more information.

LABORATORY ATTENDANCE REQUIREMENTS

BIO 211 is a four-credit hour course with three lecture hours and one three-hour lab each week. The lab grade will count as one-fourth of the final course grade. Student attendance is required for all lab sessions. It is the student's responsibility to arrange with the instructor to make up any lab that is missed. With the instructor's permission, any lab session missed can be made up at another BIO 211 lab during

that same week. If this is not possible, ONE lab can be made up by writing a term paper in the format specified by the instructor. **ONLY ONE LAB CAN BE MADE UP IN THIS MANNER**. There will be a 10-point reduction in the lab grade for each missed lab that is not made up. If a student fails to make up as many as three missed labs, his/her lab grade will be recorded as zero. See Instructor's Individual Policy for more information concerning labs.

WITHDRAWAL POLICY

A student may withdraw from a course after the add/drop period until midterm with a grade of "W." Withdrawals after midterm will result in either a grade of "W" or "WF" depending upon the student's academic performance and attendance in the course at the time of withdrawal.

STUDENT CONDUCT – ACADEMIC INTEGRITY

Students are expected to conform to all standards of conduct as specified in the York Technical College Handbook and Catalog. In addition, any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and may be subject to further disciplinary action.

EVALUATION STRATEGIES/GRADING

Grades will be determined as described below:

Lecture: 75%

The lecture grade is evaluated through lecture tests and a final comprehensive exam.

Module 1	15%
Module 2	15%
Module 3	15%
Module 4	15%
Final Comprehensive Exam	15%

Lab: 25%

The lab grade is based on the lab activities described in Modules 1-4 and is evaluated through lab quizzes and lab reports.

The grading scale will be as follows:

- A 90-100
- B 80-89
- C 70-79
- D 60-69
- F Below 60

See Instructor's Individual Policy for more information concerning determination of the final course grade.

ENTRY LEVEL SKILLS: The student entering this course must possess reading comprehension and writing skills on a 10th grade level.

PRE-REQUISITES: BIO 210

CO-REQUISITES: None

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.