

# BIOLOGICAL AND PHYSICAL SCIENCE COURSES

For the most current course descriptions, see Faculty of Arts and Science Academic E-Calendar (<https://www.queensu.ca/academic-calendar/arts-science/course-descriptions/>).

## **ANAT 101 Introductory Human Anatomy Units: 3.00**

A basic anatomy course with an emphasis on clinical relevance of structure and function of human body systems. RECOMMENDATION 4U Biology.

**Requirements:** Exclusion ANAT 101/3.0; IDIS 150/6.0 One-Way Exclusion May not be taken with or after: ANAT 215/3.0; ANAT 216/3.0; ANAT 312/3.0; ANAT 315/3.0; ANAT 316/3.0

**Offering Faculty:** Faculty of Health Sciences

## **BCHM 102 Introduction to Biochemistry Units: 3.00**

Chemical principles as applied to biochemistry, human and clinical biochemistry.

NOTE Primarily intended for students in Nursing, Life Sciences, or Biochemistry programs. Other Arts and Science students require permission of the Department to enrol.

**Learning Hours:** 118 (24 Lecture, 16 Tutorial, 6 Group Learning, 36 Online Activity, 36 Private Study)

**Requirements:** Prerequisite None. Recommended 4U Chemistry. Exclusion BCHM 270/3.0. One-Way Exclusion May not be taken with or after BCHM 310/9.0; BCHM 315/3.0; BCHM 316/3.0.

**Offering Faculty:** Faculty of Health Sciences

## **MICR 121 Microbiology for Nursing Students Units: 3.00**

This course provides the student with a foundation in the subdisciplines of bacteriology, virology, parasitology, and immunology. The course is designed to examine common infectious diseases through a body-systems approach. Laboratory and tutorial sessions emphasize diagnostic microbiology.

**Requirements:** BCHM010 OR BCHM102

**Offering Faculty:** Faculty of Health Sciences

## **PHAR 230 Pharmacology for the Health Sciences Units: 3.00**

Lecture series on the following topics: principles of drug action, autonomic pharmacology, cardiovascular-renal pharmacology, neuropsychopharmacology, chemotherapy, drugs acting on the endocrine system, over-the-counter drugs, and therapeutic applications.

**Learning Hours:** 122 (36 Lecture, 8 Group Learning, 78 Private Study)

**Requirements:** Corequisite (PHGY 215 and PHGY 216) or KNPE 225 or PHGY 210/6.0 or PHGY 214/6.0. Exclusion PHAR 270/3.0; PHAR 340; PHAR 370.

**Offering Faculty:** Faculty of Health Sciences

## **PHGY 215 Principles of Mammalian Physiology I Units: 3.00**

The focus of this course is on the central and peripheral nervous systems, muscle physiology, the heart, and the vascular system.

NOTE This course may be paired with PHGY 216/3.0 to achieve an introductory physiology full course (6.0 units).

NOTE Although it is recommended to take PHGY 215/3.0 first, this course can be taken before, after, or concurrently with PHGY 216/3.0.

NOTE Also offered online. Consult the Bachelor of Health Sciences program office. Learning Hours may vary.

**Requirements:** Minimum 2nd year (Level 2) standing.

Exclusion (KNPE 125/3.0; KNPE 225/3.0); [PHGY 210/6.0; PHGY 214/6.0; (PHGY 215/3.0 and PHGY 216/3.0)].

**Offering Faculty:** Faculty of Health Sciences

### **Course Learning Outcomes:**

1. Apply analytical skills to further your knowledge of physiological systems. (PLO8; Assessment 1,2)
2. Define homeostasis and apply feedback loops to predict and understand the control of physiological systems in the face of a variable and changing environment. (PLO1; Assessments 1,3,4)
3. Describe the physiology of the nervous system, muscles, and the cardiovascular system to identify and explain pathophysiological states. (PLO2; Assessments 1-4)
4. Note: PLO refers to the program learning outcomes to which each course learning outcome matches to.
5. Understand physiology at the molecular, cellular, and system levels in order to explain their combined role in integrative physiology. (PLO1,2; Assessments 1-4)



**PHGY 216 Principles of Mammalian Physiology II Units:  
3.00**

The focus of this course is the physiology of the respiratory, renal, gastrointestinal, endocrine, and reproductive system.

NOTE This course may be paired with PHGY 215/3.0 to achieve an introductory physiology full course (6.0 units).

NOTE Although it is recommended to take PHGY 215/3.0 first, PHGY 216/3.0 can also be taken before or concurrently with PHGY 215/3.0.

NOTE Also offered online. Consult the Bachelor of Health Sciences program office.

Learning hour may vary.

**Requirements:** Minimum 2nd year (Level 2) standing.

Exclusion (KNPE 125/3.0;KNPE 225/3.0); [PHGY 210/6.0;PHGY 214/6.0;(PHGY 215/3.0 PHGY 216/3.0)]. Note it is recommended to take PHGY 215/3.0 first, PHGY 216/3.0 can be taken before or concurrently with PHGY 215/3.0.

**Offering Faculty:** Faculty of Health Sciences

**Course Learning Outcomes:**

1. Apply research skills to further your knowledge of physiological systems. (PLO8; Assessment 2)
2. Describe the physiology of the respiratory, renal, gastrointestinal, endocrine, and reproductive systems to define normal and abnormal function. (PLO2; Assessments 1-4)
3. Note: PLO refers to the program learning outcomes to which each course learning outcome matches to.
4. Understand physiology at the molecular, cellular, and system levels in order to explain how their roles and functions are combined in integrative physiology. (PLO1,2; Assessments 1-4)