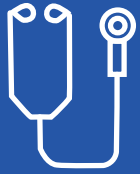




**48 Weeks/1216 Hours**

Course details



## PRE-MEDICAL & DENTAL COURSE



STUDENT SUPPORT COMMUNITY



**HEALTHCARE  
FACULTY**

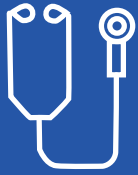
### CAREER OPPORTUNITIES

- ✓ Dentistry
- ✓ Optometry
- ✓ Pharmacy
- ✓ Nurse practitioner



# 48 Weeks/1216 Hours

## Course details



# PRE-MEDICAL & DENTAL COURSE



## Program Summary

Our pre-med program allows students to gain the prerequisite knowledge needed for medical school enrolment only within a calendar year. The program is designed to place students on a medical or dental career path straight from high school.



## Learning Focus

- Introduction to Anatomy
- Human Physiology
- Introduction to Medical Psychology
- Introduction to Epidemiology and Statistics
- Advanced Human Biology
- General Chemistry I with Lab
- Organic Chemistry I
- Human Biology
- Medical English I
- Medical Terminology
- Medical Math
- General Chemistry II with Lab
- Organic Chemistry II
- Advanced Human Biology
- Medical English II
- Physics I
- Introduction to Anatomy



## Why Do You Pursue a Pre-Medical and dental Program

For many regions, including North America and the Caribbean, the pre-med program is a requirement for those planning to study medicine. Additionally, pre-med programs provide a good foundation for advanced science courses like biology and organic chemistry, which are beneficial for medical school.

# PRE - MEDICAL PROGRAM & Dental Course



## General Chemistry I with Lab

This course provides background knowledge of the foundations of chemistry. Topics of lectures include atomic structure, theories of chemical bonding, gas laws, chemical equilibria, weak acids and bases, acid-base equilibria, thermodynamics and thermochemistry, chemical kinetics, solubility, and electrochemistry.

Hours

96

## Organic Chemistry I

This course introduces students to the basic principles that govern the structure of molecules. Topics of lectures include the structures and properties of alkenes, the concept of stereoisomerism, acids and bases, alkenes, and unsaturated hydrocarbons. Students learn nomenclature and classification of organic molecules, structure and reactivity of functional groups - hydrocarbons, alcohols, alkyl halides, alkenes and allylic systems.

64

## Human Biology

This course is designed at a pre-professional level with the aim of an in-depth understanding of the role of macromolecules in the hierarchy of the cellular organization. The course aims at a complete knowledge of the metabolic machinery of the cell in humans. This course emphasizes evolution, organismal diversity, and genetics.

64

## Medical English

This English for Health Care course is designed to help students develop general English skills with a focus on use of English in health-related work environments.

64

## Medical Terminology

This course explores frequently used medical words and abbreviations, along with terms identifying major body systems in health and disease. Emphasis is placed on spelling and pronunciation for the student to communicate accurately with patients and other professionals in the health care field.

32

## Medical Math

This course provides students the ability to evaluate a variety of arithmetic and algebraic expressions and apply these principles to typical situations that arise in the health care fields.

64

## General Chemistry II with Lab

This course further builds students' knowledge of general chemistry which is necessary to properly understand Physiology and Biochemistry.

96

## Organic Chemistry II

Through this course, students are introduced to the essential instrumental techniques of infrared spectroscopy, nuclear magnetic resonance spectroscopy, and mass spectrometry with an emphasis on interpretation and structure elucidation.

64



## Advanced Human Biology

The course is designed to build a systematic approach to the complexity of the human, these concepts will be used later in the medicine program.

Hours

64

## Medical English II

This course introduces communication theory, best practices, and skills related to public health. Students will learn about the written, oral, and visual communication of health information for professional, peer, and lay audiences.

64

## Physics I

This course introduces the fundamentals of physics. Lecture topics include an introduction to kinematics, forces, motion, and dynamics of uniform circular motion, work, energy, impulse and momentum.

64

## Introduction to Anatomy

This course is an introduction to the major concepts of human anatomy and physiology. Students gain knowledge of the structure and function of body systems and how they work together in health and disease.

64

## Human Physiology

Topics of lectures include cells and tissues, the integumentary system, the skeletal system, the muscular system, the nervous system, sense organs, and endocrine control. Students also learn about the circulatory system, immune response, respiratory system, digestive system, and genitourinary system.

64

## Introduction to Medical Psychology

Medical psychology is the branch of psychology concerned with the application of psychological principles to the practice of medicine. Through this course, students will have an introduction of the usage of techniques of psychotherapy, behavior modification, and cognitive, interpersonal, and family therapy to help patients manage chronic illness, reduce physical symptoms of disease or treatment, and manage emotional aspects of their illness.

64

## Introduction to Epidemiology and Statistics

The course provides an introduction for the students to focus on public health epidemiology, including a stream on public health infectious disease and outbreak investigation.

64

## Physics II

This course provides a continuation of the understanding of physics and gives an introduction to key physical principles as applied to medical imaging and radiation therapy.

64

## Histology with Lab

This course provides an overview of an introduction to the foundations of biology. Lecture topics include the chemistry of life, the cell, genetics, membrane structure and function, cellular respiration, macromolecules, nutrition and digestion, photosynthesis, ecology, and more.

96

## Contact us

<https://comutek.edu/>  
(416) 321-9911

