UNIVERSITY OF GUELPH
DEPARTMENT OF BIOMEDICAL SCIENCES
BIOM3200 WINTER 2017

Time: Jan. 10 to April 6, Tuesdays and Thursdays, 10:00-11:20 a.m.
Location: WMEM Room 103
Text: Fox’s Human Physiology, ISBN: 0077836375
Coordinator, Lecturer: Dr. Tami Martino, tmartino@uoguelph.ca
  • TA: Danyelle Liddle, dliddle@uoguelph.ca
    - Endocrine, Cardiovascular, Digestion
  • TA: Paul Gelis, pgelis@uoguelph.ca
    - Reproduction, Neuro
  • TA: Amber Hutchinson, hutchina@uoguelph.ca
    - Renal, Immune

Lecture Schedule:

**ENDOCRINE SYSTEM**

Jan. 10  Endocrine Principles
         Hormones and Receptors
         Pituitary Gland

12  Hypothalamic control
    Adrenal axis
    Thyroid

17  Calcium balance
    Growth Control

19  Male Endocrine System
    Female Endocrine System

**RENAL SYSTEM**

24  Electrolyte and water balance
    Anatomy of the kidney
    Microanatomy of the kidney, filtration

26  Renal regulation: the nephron, glomerular filtration
    Tubular reabsorption, secretion
    Regulation of acid-base balance

31  REVIEW CLASS FOR TERM TEST #1

Feb. 02  Term test #1 (1 hour, covers lectures Jan 10 – Jan 26, inclusive)
REPRODUCTIVE SYSTEM

CARDIOVASCULAR SYSTEM

Feb. 07  Cardio-vascular system
        Blood vessels: structure, hemodynamics
        Blood Flow
        Regulation of peripheral resistance

          09  Cardio-respiratory system
              Cardiac Anatomy
              Cardiac contraction (cellular)

          14  Cardiac contraction (molecular)
              Heart Disease

REPRODUCTIVE SYSTEM

Feb. 16  Gametogenesis
        Pregnancy, Early embryo development

        Mon. Feb 20 – Friday Feb 24: WINTER BREAK NO CLASSES

          28  Female/Male Reproductive systems
              Sex determination and differentiation

Mar 02  Partuition, postpartum, lactation

07  REVIEW CLASS FOR TERM TEST #2

Mar. 09  Term test #2 (1 hour, covers lectures February 07 – Mar 02, inclusive,
        Reproductive and Cardiovascular Systems

BLOOD & IMMUNE SYSTEM

Mar. 14  Blood: constituents and functions of plasma

          16  Erythrocytes, Leukocytes
21 Platelets and blood coagulation

NERVOUS SYSTEM

Mar. 23 Introduction to neurophysiology
       Cellular Physiology
       Autonomic Nervous system

28 Cell membrane and transport
       Membrane resting and action potentials
       Action potential conduction

30 Central Nervous system

DIGESTIVE SYSTEM

Apr. 04 Structure and Function

06 Digestion and Absorption
       Role of accessory organs

All sections are on the FINAL EXAM (2 HOURS), which covers all material on the Endocrine, Renal, Reproductive, Cardiovascular, Immune, Cardiovascular, Nervous, and Digestive Systems. However greater emphasis will be on the sections that have not yet been tested – Immune System, Neurophysiology, and digestion. Details will be provided in class.

FINAL EXAM

THURSDAY April 13, 2017 11:30 – 1:30