Minnesota State University Moorhead

BIOL 423: Advanced Gross Anatomy

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 4

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:
This course requires either of these prerequisite categories
1. Both of these
   BIOL 125 - Human Anatomy and Physiology I with Lab
   BIOL 126 - Human Anatomy and Physiology II w/Lab
   Or
2. BIOL 323 - Human Anatomy

Corequisites: None

MnTC Goals: None

Advanced Gross Anatomy will focus on several modules studying the anatomical differences between females and males in response to sex hormones. Emphases is on clinical applications that arise due to anatomical differences between the sexes.

B. COURSE EFFECTIVE DATES: 02/11/2021 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Differences in fat deposition between the sexes
   -Lectures: Basic Anatomy overview and tissues
   -Lectures: Adipose as an Endocrine gland
   -Discussions of 3 peer-reviewed papers on biological sex differences in adipose deposition
2. Differences in joint laxity between the sexes
   -Lectures: overview of skeleton and joints
   -Lectures: factors that affect movement
   -Discussion of 3 peer-reviewed papers on biological sex differences in joint laxity.
3. Differences in brain morphology between the sexes
   -Lectures: Overview of Nervous Tissue including white vs Gray matter
   -Lectures: Brain and Limbic System
   -Discussion of 3 peer-reviewed papers on biological sex differences in brain morphology

D. LEARNING OUTCOMES (General)

1. Identify basic anatomy relating to each module.
2. Describe anatomical sex differences in response to sex hormones.
3. Discuss the functional and clinical implications of anatomical differences between females and males in response to sex hormones.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted