

BANNER COURSE MODIFICATION FORM

This form changes course information in Banner Catalog. Changes to the Schedule are the responsibility of the departments with guidance from the Registrar. Please refer to the Curriculum Guidelines, Policies, and Procedures for courses designated as General Studies, Multicultural, and Senior Experience.

COURSE PREFIX & NUMBER:

Grade Mode

Present Listing:

Desired Listing:

Effective Term:

Schedule Type

Present Listing:

Desired Listing:

Effective Term:

Banner Enforced Pre/corequisite(s) and Restrictions (e.g., class standing, majors only, non-majors)

Present Listing:

Desired Listing:

Effective Term:

Banner Enforced Prerequisite(s)

Present Listing:

Desired Listing:

Effective Term:

Banner Enforced Corequisite(s)

Present Listing:

Desired Listing:

Effective Term:

This list of pre/corequisite(s), restrictions, and/or corequisite(s) must be the same list or a subset of the official course prerequisites and/or corequisites listed in the Catalog. It may not contain courses or requirements that are not included in the official Catalog listing of prerequisites and/or corequisites.

APPROVALS:

Department Chair OR Program Director:

Digitally signed by Ford Lux
DN: cn=Ford Lux, o=Biology, ou=Biology, email=flux@msudenver.edu, c=US
Date: 2014.10.30 17:13:59 -0600

Date

Dean OR Associate Dean:

Date

AVPASA or Designee:

Date

METROPOLITAN STATE COLLEGE OF DENVER
Office of Academic Affairs

REGULAR COURSE SYLLABUS

School of: Letters, Arts and Sciences

Department: Biology

CIP Code: 26.0706

Prefix & Course Number: BIO 2310 **Crosslisted With*:** _____

Course Title: Human Anatomy and Physiology I (3+3)

Check All That Apply: Required for Major: ☐ Required for Minor: ☐ Specified Elective: ☒
Required for Concentration: ☐ Elective: ☐ Service Course: ☒

Credit Hours: 4 (3+3)

Total Contact Hours per semester (assuming 15-16 week semester):

Lecture 45 Lab 45 Internship _____ Practicum _____ Other (please specify type and hours): _____

Schedule Type(s): 6,B **Grading Mode(s):** L

Variable Topics Courses (list restrictions, including the maximum number of hours that can be earned**):

**** NOTE:** This information must be included in the course description.

Restrictions (Variable Topics Course): _____

Prerequisite(s): BIO 1080 and BIO 1090 or permission of instructor.

Corequisite(s): _____

Prerequisite(s) or Corequisite(s): _____

Banner Enforced:

Prerequisite(s): BIO 1080 and BIO 1090

Corequisite(s): _____

Prerequisite(s) or Corequisite(s): _____

Catalog Course Description:

This is the first of two courses addressing the structure and function of the human body. Topics include tissues, anatomy, the musculoskeletal system and neurophysiology. Course content and class level are designed for allied health science students and for human performance, sport and leisure studies majors.

APPROVED:

Department Chair/Institute Director

Dean

Associate VP, Academic Affairs

Date

Date

Date

Prefix and Course Number:

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Required Reading and Other Materials will be equivalent to:

Seeley, Stephens and Tate, *Anatomy and Physiology*, McGraw Hill, 2003 or current edition

Marieb, *Human Anatomy and Physiology Laboratory Manual*, Benjamin/Cummings, 2004 or current edition

Specific (Measurable) Student Behavioral Learning Objectives (format: 1, a, i, ii, etc.):

Upon completion of this course the student should be able to:

Lecture:

1. Define common anatomical terms and understand the various levels of organization in the body.
2. Explain the components and functions of the skeletal system.
3. Explain structure and function of principal joints.
4. **Explain the relationship between bones and muscles in producing movements of the body.**
5. Explain the histological characteristics of neurons.
6. Describe neuron types and their functions.
7. Describe structure and function of skeletal muscle fibers, skeletal muscle tissues, and whole muscle.
8. **Describe similarities and differences of smooth, cardiac and skeletal muscle tissues**
9. Describe organization of nervous system.
10. Describe functions of brain regions.
11. Describe autonomic controls.
12. **Explain function of the eye.**
13. Describe auditory and vestibular function.
14. Describe taste, touch, olfactory, pressure and thermosensory mechanisms.

Laboratory

1. Show skills in dissection procedures.
2. Identify bones and major surface feature of the human skeleton.
3. Identify major skeletal muscles by name, attachment and function.
4. Identify principal parts of central and peripheral nervous systems.

Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision) (format: I, A, 1, a, etc.):

- I. Lecture Content (taught with lectures, chalkboards, PowerPoint, transparencies and/or handouts.)
 - A. Introduction to basic anatomy
 - B. Skeletal morphology
 1. Microanatomy of bone and cartilage
 2. Bone Physiology
 3. Functional anatomy of the human skeleton
 - C. Arthrology - Structure, function and classification of joints
 - D. Muscular System
 1. Physiology of muscle contraction
 2. Survey of human muscular system
 3. Analysis of bone muscle systems
 - E. Neurophysiology
 1. General design and functional divisions of the nervous system
 2. Membrane potentials
 3. Action potentials and neuronal functions
 4. Anatomy and Physiology of the spinal cord and spinal nerves
 5. Anatomy and physiology of the brain and cranial nerves
 6. Sensory and motor physiology

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II. Laboratory Content (taught with diagrams, laboratory manual, specimens and computers.)

- A. Tissues
- B. Human Skeleton (identification of bones and surface markings)
- C. Muscular System (dissection and identification of cat muscles)
- D. Central and Peripheral Nervous Systems (cat dissection and sheep brain)
- E. Sensory and Motor Physiology

Evaluation of Student Performance (format: 1, a, i, ii, etc.):

Students will be evaluated on the basis of:

- 1. Two or more lecture examinations
- 2. Two or more laboratory tests
- 3. A final examination