INSTITUTION: MSU – BOZEMAN

COURSE TITLE: Anatomy and Physiology: A Case Study Approach

COURSE NUMBER: MSSE 580

CREDITS: 3

INSTRUCTORS: Dr. Cherie McKeever
               cmckeever@gfcmsu.edu

PREREQUISITES:
The course prerequisites are a minimum of 2 years successful science teaching experience, enrolled in MSSE degree, or by instructor approval. Participants must hold a bachelors degree in science, science education or a related area. Participants should have a thorough understanding of basic anatomy and physiology principles either through teaching and/or undergraduate work.

I. COURSE DESCRIPTION

This course is designed for high school and post-secondary teachers of human anatomy and physiology and presumes the student already has a solid foundation in A&P. This course provides an introduction to the use of case studies as an effective way to integrate problem based learning into the human anatomy and physiology classroom. This course is a methodology course designed for instructors who are already comfortable with fundamental physiological concepts. Students will explore clinical applications of these principles via case studies. During the semester, students will participate in discussions regarding various physiological concepts, the use of case studies to improve student comprehension and build critical thinking skills, as well as critiques and modifications of presented case studies to allow individuals to build a collection of classroom-ready case studies. By semester’s end, each student will also develop an original case study for use in their high school or post-secondary A&P classroom.

II. COURSE MATERIALS:

Text: A college-level Anatomy and Physiology text. Some recommendations include:


### III. COURSE OBJECTIVES:

The primary objective of this course is to familiarize students with the use of case studies to promote conceptual understanding of physiological principles in a high school or two year college level Human Anatomy & Physiology course, and to give students the opportunity to develop a set of case studies appropriate for use in their individual A&P classrooms.

During the semester students will:

1. Review the physiological principles of select organ systems involved in maintaining homeostasis of the human body.
2. Work with classmates to resolve presented case studies and experience first-hand the value, challenges and rewards of an integrated case study approach to learning anatomy and physiology.
3. Modify presented case studies and develop one original case study to create an individualized collection of ready-to-use case studies appropriate for use in one’s high school or college level A&P course.
4. Participate in the peer review of original case studies.

### IV. COURSE EVALUATION:

**GRADES** - Your grade will be calculated from a total 1000 point scale.

**Week 1:**

- a. Submit Biography in Drop box - 25 pts
- b. Article Review Exercise – 100 pts

**Weeks 2 through 4 @ 175 pts each unit**

- a. Weekly Discussion and Case Study Resolution– 50 pts.
- b. Case Study Evaluation and Modification – 100 pts.

**Week 4: Final Project: Creation of Original Case Study**

- 250 pts

**Week 6: Peer Review of classmate’s original case study**

- 100 pts

**Total Points for Course** 1000 pts.

Revised June 2016
All graded discussion posts must be **original, quality responses. Posts that include text copied verbatim from references ('Cut and paste') will not be accepted, even if cited.** Please see grading rubrics for specific guidelines.

The grade scale will be **strictly** adhered to and is as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93 - 100%</td>
<td>A</td>
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<tr>
<td>90 - 92%</td>
<td>A+</td>
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<tr>
<td>88 - 89%</td>
<td>B+</td>
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<tr>
<td>83 - 87%</td>
<td>B</td>
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<td>80 - 82%</td>
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<td>78 - 79%</td>
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<td>73 - 77%</td>
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<td>70 - 72%</td>
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*Grades are rounded up from 0.5% and above. For example, a 79.5% will be rounded up to 80%. A 79.4% will not.*

You will have 7 days from the posting of your grades to work with the instructor to resolve grading disputes.

**Maintaining Intellectual Integrity (Plagiarism)**

Paraphrasing or quoting another’s work without citing the source is a form of academic misconduct. Even inadvertent or unintentional misuse or appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is considered plagiarism. All sources of information that are not your original thoughts need to be cited. This includes, but is not limited to, journal articles, textbooks and online resources.

Adapted from MSU Syllabus language page

Summer 2016