Date: Spring Semester 2019
Class Dates: Jan 7th – May 3 2019
Instructor: Gerald (Jerry) M. McGraw, EdD, MPAS, MBA, PA
Office Phone: 605-545-0656
Email: gmmcgraw (D2L email address)
Classroom: Online
Office Location: NA

Course Description:
This course is an introduction into the study of the microbiology. We will explore the world of viruses, bacteria, and parasites and how each causes detrimental and/or beneficial effects on the human body. We will explore basic concepts of biochemistry, cell structure, tissues, histology, and metabolism of the various microorganisms and identify how they specifically affect the body systems of the human body. The course has a clinical overlay and is designed for students interested in health care careers.

Objectives:
- Explore the history of Microbiology
- Identify the technological improvements in the identification, management, eradication, and or treatment of microorganisms
- Understand eukaryotic and prokaryotic cell structure and function.
- Understand how bacteria and viruses effect not only our bodies but the environment around us
- Understand the processes that bacteria and viruses use to proliferate at the cellular and molecular levels
- Explore how specific microorganisms effect specific body systems

Prerequisites:
There are no prerequisites for this class but there is a strong need to understand basic chemistry concepts.

Instructor Information:
Gerald McGraw, EdD, MPAS, MBA, PA
Instructor
University Center Rapid City
4300 Cheyenne Blvd
Rapid City, SD 57709
Phone: 605-545-0656 (call or text)
Email: gmmcgraw (D2L email address)
Activities & Examinations:

Overview
This course is set up so that the grade you achieve is entirely up to you. It is imperative that you participate in all facets of each assignment to be successful, especially considering the online environment. This has been set up to be predictable and consistent week to week.

Each week you will have access to a recorded presentation for the chapter(s) we are on and a copy of the PowerPoint presentation. Additionally, you will be required to participate in a discussion question each week. Once you have completed those items, you will take the chapter quizzes. You will be given a full week to complete all assignments (Monday, at 8 AM CST, to Sunday 11:59 PM CST – PLEASE NOTE THIS MEANS 10:59 PM MST) so no late homework, chapter quizzes, or exams will be accepted and will be assessed a zero without exception.

Weekly Discussion Questions: You will have 11 discussion questions, each worth 10 points. You must log into D2L and complete a response each week to achieve all of the possible points. Responses must use proper grammar and punctuation, and been written in complete sentences. Any response that does not completely respond to the discussion or has improper grammar/punctuation will be docked points. To achieve full credit for your response you can expect to have 2-3 full paragraphs at a minimum. Responses must be completed within the allotted time limit to be accepted. Total points possible: 110 points.

Weekly Quizzes: You will have 11 chapter quizzes, each worth 50 points. You will be allowed to take each quiz anytime within the allotted week once you have completed the discussion question and lab/lab report for the chapter, but you will only have 60 minutes to complete it once you start. No retesting will be accepted. Quizzes are not proctored but should represent your individual work; this is not a team project. Total points possible: 110 points.

Additionally, you will have 3 Unit Exams which must be proctored and 5 clinically specific case studies which will be due at the same time as each unit exam. We will follow this process through the course until we have completed chapters 1-24 of the text. In the final week (no later than Dec 16th, 2015) you will complete the final exam. The final exam must also be proctored.

Unit Exams: You will have three, 100 question, unit exams, each worth 100 possible points. You will be allowed to take each exam anytime within the allotted week once you have turned in the pre-requisite assignments but you will only have 2 hours to complete it once you start. No retesting will be accepted. Total points possible: 300

NOTE: All exams must be proctored so be sure you have completed the proctor form [http://www.usd.edu/cde/upload/Proctor-Form.pdf](http://www.usd.edu/cde/upload/Proctor-Form.pdf) located in the Online Student Orientation Guide. [http://www.usd.edu/cde/upload/Online-Orientation-Guide.pdf](http://www.usd.edu/cde/upload/Online-Orientation-Guide.pdf) Unproctored exams will NOT be accepted for credit.
Case Studies: You will have three case studies, each worth 50 points. You must complete a 4 page, double spaced report (1” borders), using no larger than 12 type font (Times Roman or Arial) for each case study.

Case studies will be docked 10 points for each page they are short of the 4 page minimum (even if it is one single line) so ensure that your case studies meet the minimum length requirement.

ALL CASE STUDIES MUST BE SUBMITTED TO PASS THIS COURSE.

You are required to use a minimum of three sources (one may to be your textbook but all sources must be medically valid - Wikipedia IS NOT a valid source). Again, the papers must use proper grammar and punctuation to achieve all possible points. Papers must be uploaded into the class dropbox within the allotted time limit to be accepted. Total points possible: 150 points

Final Exam: The final exam will be a comprehensive exam over all the material presented in the course. It will consist of a 150 question that must be completed within a 3 hour time limit. You will be allowed to take the final exam on or before Dec 9th, 2019 at 5pm CST (you will have several days to choose from to complete the exam). Final exams not completed by Dec 9th, 2013, at 5:00 PM CST will receive a zero (0). Total possible points: 200

NOTE: I will complete feedback on all chapter elements by the Friday after they are submitted. That will allow me time to review all of the components, identify suggestions, and advise you of the results. Quiz and unit exam scores will be available for your review after the closure date/time. You simply go into D2L using the lock down browser, select the “submission view” and review your quiz or exam. I DO NOT OPEN QUIZZES OR EXAMS FOR REVIEW UNTIL AFTER THEY CLOSE FOR COMPLETION.

Evaluation & Grading:

<table>
<thead>
<tr>
<th>Element</th>
<th>Number</th>
<th>Points</th>
<th>Total points</th>
<th>%</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Unit Exams</td>
<td>3</td>
<td>100</td>
<td>300</td>
<td>30%</td>
<td>One after every 4/5 chapters</td>
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<tr>
<td>Final Exam</td>
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<td>200</td>
<td>200</td>
<td>20%</td>
<td>One at the end of semester</td>
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<tr>
<td>Case Studies</td>
<td>3</td>
<td>50</td>
<td>150</td>
<td>15%</td>
<td>One after every 4/5 chapters</td>
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<tr>
<td>LearnSmart Exercises</td>
<td>13</td>
<td>10</td>
<td>130</td>
<td>11%</td>
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<tr>
<td>Discussion Questions</td>
<td>11</td>
<td>10</td>
<td>110</td>
<td>11%</td>
<td>One per week</td>
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<tr>
<td>Quizzes</td>
<td>11</td>
<td>10</td>
<td>110</td>
<td>11%</td>
<td>One per week</td>
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<td>Total</td>
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<td>1000</td>
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<td>Grade Averages (percentages)</td>
<td>Grades</td>
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<td>80 – 89.99</td>
<td>B</td>
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<td>70 – 79.99</td>
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<td>Below 60</td>
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In order to maintain the standards, level of expectations, fairness, and integrity of the course:

- Extra credit or extra work for grade improvement is NOT offered.
- Grades are NOT curved or rounded up
- Final grades are NOT changed.

Required Textbook:

**COMBO:**
Author: Anderson  
Title: Nester's Microbiology  
Edition: 8  
Copyright: 2016  
Format: Loose-leaf textbook with Connect access included (Online access to textbook included)  
ISBN: 9781260372366  
Price to bookstore: 130.00

OR: IF YOU WISH TO PURCHASE THE TEXTBOOK USED YOU WILL ALSO NEED THE FOLLOWING….

**CONNECT STANDALONE:**
Author: Anderson  
Title: Nester's Microbiology  
Edition: 8  
Copyright: 2016  
Format: Access Card (Online access to textbook included)  
ISBN: 97800777730802  
Price to bookstore: 87.50

A medical Dictionary (recommended). Stedman's or Mosby's would be great options.

Disability Statement:
Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester.  
For information contact:
Freedom in learning statement:
Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact Associate Dean Dr. Steve Waller to initiate a review of the evaluation.

My expectations from students:
- Be in compliance with USD policies outlined in the student handbook.
- A university email account is required from all students within the first week of the semester. Email accounts are free of charge from your home university. If you are having problems setting one up let me know and I will be glad to help you in the process. You are responsible for checking your email at least 2 times a week. Many timely-required assignments will be communicated only by email and your prompt response is necessary (no exceptions).
- Due to privacy and confidentiality I will only communicate with you on your D2L account. Please use my D2L email for all communications (do not use my USD email).
- It is expected that each hour spent in class; at least two hours are required for studying.
- Timely completion of assignments.
- Show enthusiasm and interest in the subject matter.
- Take responsibility for your learning and be a self-initiator.
- Maintain academic integrity as outlined in USD student catalog 2010-2011 catalog (see honor code below).

What students should expect from me:
- I will be available for you via email and will do my very best to answer all emails within 24 hours of receipt during the work week and within 48 hours during holidays and weekends. I ask that you limit the use of phone contact to actual emergencies (voice or texting).
- I will do whatever is potentially possible for you to succeed in the course.
- On your D2L course page you have access to the outline of the lectures, case studies, syllabus, etc. Please familiarize yourself quickly with D2L. For instruction guide to D2L use this link: http://www.usd.edu/ce/Orientation.pdf

Academic Dishonesty:
This course is taught to students who are preparing to enter the health care professions. These professions demand the highest integrity and honor. Therefore, cheating, dishonesty, plagiarism, or any other dishonorable conduct with regard to a student’s completion of any
assignment is not only morally wrong but also a violation of the ethical code of the profession the student is preparing for. **Consequently a student engaging in any form of academic dishonesty will receive a failing grade in this course. There are no exceptions to this policy.** See the definition of plagiarism below as it will pertain to the case studies.

**Plagiarism:**

In her 1988 book, *Writing Papers in the Biological Sciences*, Victoria E. McMillan clearly defines plagiarism as follows:

Plagiarism is the theft of someone else's words, work, or ideas. It includes such acts as 1) turning in a friend’s paper and saying it is yours; 2) using another person’s data or ideas without acknowledgment; 3) copying an author’s exact words and putting them in your paper without quotation marks; and 4) using wording that is very similar to that of the original source, but passing it off as entirely your own. Downloading information from the internet and handing it in as your own work is plagiarism.

McMillan (1988) describes plagiarism of text from a written source and discusses the reasons why the text is plagiarized. For clarity and for your understanding, the example and discussion are presented below.

- **Original passage:** A very virulent isolate of *Alternaria mali*, the incitant of apple blotch, was found to produce two major host-specific toxins (HSTs) and five minor ones in liquid culture. The minor toxins were less active than the major ones, but were still specifically toxic to plants which are susceptible to the pathogen. (Kohmoto, Kahn, *et al.* 1976, p. 141)

- **Plagiarized:** Kohmoto, Khan, *et al.* (1976) found that a very virulent isolate of *Alternaria mali*, the incitant of apple blotch disease, produced two main host-specific toxins, as well as five minor ones in liquid culture. Although the minor toxins were less active than the major ones, they were still specifically toxic to the susceptible plants.

  - Explanation: Although the writer has altered a few words here and there, the second passage is strikingly similar to the original. It is still plagiarism if you use an author’s key phrases or sentence structure in a way that implies they are your own, even if you cite the source…. The writer should put the whole passage in his or her own words and word order.

Plagiarism of this kind is usually unintentional, the result of poor note-taking and an incomplete understanding of the ethics of research and writing. Typically the problem arises when you lean heavily on notes that consist of undigested passages copied or half-copied from the original source. Your text becomes an amalgamation of other people’s words disguised as your own. Even if you cite references for facts and ideas, you are still guilty of plagiarism because the wording is not completely yours. [emphasis mine]

- Acceptable paraphrasing: Kohmoto, Khan *et al.* (1976) examined the activity of toxins produced in liquid culture by the causal agent of apple blotch disease, *Alternaria mali*. They identified seven different toxins, each of which produced
symptoms on susceptible plants, but not on resistant plants. Of the seven toxins, two were correlated with the appearance of severe symptoms and five with mild symptoms.

Assessment:
- The individual clinical case studies are designed to sharpen your problem-solving skills and better acquaint you with strategies on how to approach and research a scientific problem and to familiarize you with the disease process.
- The discussion questions give you the opportunity to clarify concepts via communication with your classmates.
- The quizzes provide an opportunity to review your knowledge of the subject matter.
- **The unit and the final exams are required to determine your basic understanding and knowledge of anatomical processes.** They are also designed to enhance your test taking strategies and your problem-solving skills.

_P.S.: All information on this syllabus may be subject to modification at the discretion of the instructor._

Schedule:

<table>
<thead>
<tr>
<th>Opens</th>
<th>Closes</th>
<th>Class Activity</th>
<th>Homework Due on the &quot;Close Day&quot; at 11:59 pm CST</th>
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</thead>
<tbody>
<tr>
<td>7-Jan</td>
<td>13-Jan</td>
<td>Syllabus Review/Chapter 1</td>
<td>VAIL Tutor/Syllabus Review/DQ/Chapter 1 Quiz</td>
</tr>
<tr>
<td>14-Jan</td>
<td>20-Jan</td>
<td>Chapter 2</td>
<td>DQ/Chapter 2 Quiz</td>
</tr>
<tr>
<td>21-Jan</td>
<td>27-Jan</td>
<td>Chapter 3</td>
<td>DQ/Chapter 3 Quiz</td>
</tr>
<tr>
<td>28-Jan</td>
<td>3-Feb</td>
<td>Chapter 4</td>
<td>DQ/Chapter 4 Quiz</td>
</tr>
<tr>
<td>4-Feb</td>
<td>10-Feb</td>
<td><strong>Unit 1 Exam (Chapters 1, 2, 3, &amp; 4)</strong></td>
<td><strong>APA Review/Unit 1 Research Paper</strong></td>
</tr>
<tr>
<td>11-Feb</td>
<td>17-Feb</td>
<td>Chapter 5</td>
<td>DQ/Chapter 5 Quiz</td>
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<tr>
<td>18-Feb</td>
<td>24-Feb</td>
<td>Chapter 6</td>
<td>DQ/Chapter 6 Quiz</td>
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<td>25-Feb</td>
<td>3-Mar</td>
<td>Chapter 7</td>
<td>DQ/Chapter 7 Quiz</td>
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<tr>
<td>4-Mar</td>
<td>10-Mar</td>
<td>SPRING BREAK</td>
<td>NO ASSIGNMENTS</td>
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<tr>
<td>11-Mar</td>
<td>17-Mar</td>
<td>Chapter 8</td>
<td>DQ/Chapter 8 Quiz</td>
</tr>
<tr>
<td>18-Mar</td>
<td>24-Mar</td>
<td><strong>Unit 2 Exam (Chapters 5, 6, 7, &amp; 8)</strong></td>
<td><strong>Unit 2 Research Paper</strong></td>
</tr>
<tr>
<td>25-Mar</td>
<td>31-Mar</td>
<td>Chapter 9</td>
<td>DQ/Chapter 9 Quiz</td>
</tr>
<tr>
<td>1-Apr</td>
<td>7-Apr</td>
<td>Chapter 10</td>
<td>DQ/Chapter 10 Quiz</td>
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<td>8-Apr</td>
<td>14-Apr</td>
<td>Chapter 11</td>
<td>DQ/Chapter 11 Quiz</td>
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<td>15-Apr</td>
<td>21-Apr</td>
<td>Chapter 12</td>
<td>DQ/Chapter 12 Quiz</td>
</tr>
<tr>
<td>22-Apr</td>
<td>28-Apr</td>
<td><strong>Unit 3 Exam (Chapters 9, 10, 11, 12)</strong></td>
<td><strong>Unit 3 Research Paper - Group Project</strong></td>
</tr>
<tr>
<td>29-Apr</td>
<td>3-May</td>
<td>Final Exam*</td>
<td>Must be completed Friday, May 3rd, 11:59PM CST</td>
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</tbody>
</table>

*Must be completed Friday, May 3rd, 11:59PM CST*