BIO 309
Your Body, Your Health, Your Choices

Credit Hours: 3
Location: Omaha
Time: 6 p.m. – 10:30 pm
Dates: Tuesday: 8/19, 9/9, 9/30, 10/14
Instructor: Drew Case, RN, MSN
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Phone: 402-381-8421

Blackboard: Please note that this will class will use “Blackboard" extensively for assignments, grading, communication, etc. Go to https://bb2.doane.edu/webapps/login/ to log into Blackboard. Use the same “user name & password” as you do for your Doane e-mail.

Course Description:

This is an interdisciplinary course encompassing biology, chemistry, biotechnology, medicine, and natural sciences. It examines controllable factors that influence human health and wellness. Students will use critical thinking, problem solving, and scientific method to examine topics including diabetes mellitus, sexually transmitted diseases, vitamins and supplements, carcinogens, diet, medications, and pollution. Upon completion of this course, students will have a knowledge base upon which to draw when making decisions critical to their personal health and wellness and to that of the communities they serve. Prerequisite: BIO-101

Course Objectives:

• Introduce the student to current issues in biomedical sciences, scientific research and its applications.
• Develop a basic knowledge of the major information resources for scientific disciplines and the research skills to use them.
• Develop problem solving and communication skills essential to communication in health and science.
• Become informed of current science issues and how they relate to your health.
• Understand current issues related to the importance of science education and the public understanding of science. Know how to “keep-up” with biomedical sciences.
• Understand the consequences of biomedical applications to our lives.
• Understand medical science in personal and social perspectives.
• Be able to “apply” what you learn to your life.
Course Activities:

The basic format of the class will be *online class discussion and engagement* (participation). Students will be assigned topics (see schedule) to research and post on Bb the following week. Each week a topic is assigned and then the student is required to determine why that is important for us to learn about, what is relevant for us to know, latest research and theories, and how we can apply their findings to our lives. The basic principle is to get you (the student) thinking about what is important to know about the topics and how we can apply it to our lives.

Required Text:

There is no required textbook for this course. Students will be responsible for finding and presenting information in class.

Doane College Academic Integrity Policy:

The Doane College Academic Integrity Policy will be adhered to in this class. All projects/presentations must represent you’re own work. Any use of other’s ideas and words without proper citation of sources is plagiarism and will result in penalties to be determined by the instructor and/or dean of undergraduate studies.

Engagement/Feedback:

Students are expected to attend/participate every week. Students will be required to post their papers for all to read and respond to. It is expected that each student will provide feedback to each paper submitted. Asking questions and providing professional feedback is *required (20% of your grade)* and we will have “discussion” over each other’s papers via Bb discussion board.

Grading:

Grading will be based on attendance, engagement/presentation, and write-ups. There will be a total of 300 points for the entire class divided up as follows:

<table>
<thead>
<tr>
<th>Graded Activity</th>
<th>Points each class (total)</th>
<th>Approximate % of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement / Feedback</td>
<td>5 (35)</td>
<td>= 20%</td>
</tr>
<tr>
<td>Papers</td>
<td>20 (140)</td>
<td>= 80%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25 (175)</strong></td>
<td><strong>=100%</strong></td>
</tr>
</tbody>
</table>

Grading Scale:

- 100 – 95 = A
- 94 – 90 = A-
- 93 – 87 = B+
- 86 – 84 = B
- 83 – 80 = B-
- 79 – 77 = C+
- 76 – 74 = C
- 73 – 70 = C-
- 69 – 67 = D+
- 66 – 64 = D
- 63 – 60 = D-
- 59 & below = F
WEEKLY WRITE UP: (total 20 points)

- 1 point – 2-4 pages

- Total 6 points - Introduction
  - 2 points - Clearly states the problem/issue/topic
  - 2 points - Clearly states why you think it's a problem
  - 2 points - Clearly states your claim on the subject. In one sentence, you establish your focus and your viewpoint that you will support in the body of the paper. This should start with “I think.....” or “I believe....” or “I will show...”. Example: “I think that weight loss supplements are ineffective and actually dangerous”. “I think that supplements need to be regulated by the FDA”. “I believe that taking vitamin C reduces the duration of viral infections”. A sample paper will be provided in class.

- Total 8 points - Body
  - 2 points - Use at least three research articles to support your position. This means you need to reference them in the paper.
  - 2 points - Clearly support your claim using your references. This is not “stating your opinion” but “backing it up” with research and references.
  - 2 points - Make your argument one-way or the other.
  - 2 points - Your presentation is: (see Critical Thinking handout)
    - Accurate
    - Precise
    - Relevant
    - Clear
    - Logical

- 2 points - Conclusion
  - A “brief” summary of your claim and conclusions in how you supported it and tied it all together.

- 2 points - Reference page
  - Minimum of 3 research articles.

- 1 point - Paper Presentation
  - Double spaced
  - 12 Font
  - Typed
  - Clearly has been proofed for grammar, punctuation, and sentence structure
  - Run spell-check
Class Schedule: *(this can change and will be finalized the first night of class)*

**Class 1**  
**Topic:** Our Health – Just the “facts”  
In this class we will discuss some basic health facts. We will cover things like figuring your BMI, BMR, diet analysis, basic nutrition, water requirements, and sleep. The most important thing we need to do is decide on future topics and plan out the remainder of the course. Future topics are suggested but can/will be changed with class input at instructor discretion. As a class we will create a list of possible subjects on the board and then vote on them. **This will be the class schedule!**

**Class 2**  
**Topic:** Obesity – The “growing” problem in America.
Is this a problem? Why? What is fact and fiction regarding obesity? Can it be genetic? Is it in our control? Do pills work? Is medication and surgery the solution? What are the various types of surgery available and what are the risks? What are the diets that work and don't work and why? What are the dangers if any to diets?

**Class 3**  
**Topic:** Diabetes – Why should we be concerned?  
What is diabetes mellitus? Why is it on the rise? What are the short and long term consequences of DM? What are the treatments for DM?

**Class 4**  
**Topic:** Vitamin supplements – Do they help?  
Which ones? Are their risks? Should children be taking multivitamins? Do vitamins do anything applied topically?

**Class 5**  
**Topic:** Supplements – The “miracle” solution?  
“Exercise and energy boosters", hormones, energy drinks, etc. Do we need them and do they even work? Can we slow aging or even reverse it? Is there research to back the claims? What are the risks if any? Do I need more “testosterone”?

**Class 6**  
**Topic:** Vaccines – Is this a Government cover-up?  
Do they cause autism? Do they work? What are the risks? What are the consequences of not getting them? Do we continue to require them for school? How long have they been around? Where are we getting them?

**Class 7 & 8**  
**Topic:** To be determined first night of class