**Spring 2013 MMBB 154 Introductory Microbiology**

**Professor:** **Dr. Bohach**
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**Teaching Associate:** **Kelly Deobald email:** deob7679@vandals.uidaho.edu

**Office Hours:** **Tuesdays and Thursdays 3:15-4:15 pm or by appointment**

**Required Text:** **Alcamo's Fundamentals of Microbiology**
**by Pommerville; Ninth edition**

**BbLearn:** **Login to at https://bblearn.uidaho.edu**
**for syllabus, PowerPoint slides, text website, & exam scores**

MMBB 154 is an introduction to the fundamental principles of microbial systems and to the information generated by microbiology that enriches all of biology. The course has a public health/infectious disease emphasis; however, the many dimensions of the microbial world will be discussed and include sub-cellular organization and functions, basic information about life cycles, cell division, and genetics. The activities of microorganisms in disease, global elemental cycles, sewage disposal, industrial processes, food and dairy product manufacturing, and contemporary topics in microbiology will be introduced.

**Plan Your Schedule to take 4 Exams:**

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|---|---|---|---|
| **Exam 1** | **Thursday** | **2/7** | **Text Chapters 1, 3, 4, 5, 6, 8, and 9** |
| **Exam 2** | **Thursday** | **3/7** | **Text Chapters 10, 11, 12 and 13** |
| **Exam 3** | **Tuesday** | **4/9** | **Text Chapters 14, 15, 16, 17 and 18** |
| **Exam 4** | **Thursday** | **4/25** | **Text Chapters 7, 24, 25, 26, and 27** |

Exams cover material in the assigned text reading with an emphasis on the material presented in the lectures. Exams will be multiple choice or similar objective-type questions.

**Your course grade will be calculated from the sum of your BEST 3 exams (drop one lowest score) using the following scale:**

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|---|---|
| A – 90-100% | 270 to 300 total points |
| B – 80-89% | 240 to 269 total points |
| C – 70-79% | 210 to 239 total points |
| D – 60-69% | 180 to 209 total points |
| F -- below 60% | ≤179 total points |

**MISSED EXAMS:** An alternative exam will be offered only to those with a UI-approved excuse (illness with a physician's note; documented death of an immediate family member; official UI travel). Alternative exams will be in short answers format and occur during class time as follows: Exam 1: Thursday 2/14, Exam 2: Thursday 3/21, Exam 3: Tuesday 4/16, Exam 4: Thursday 5/2.

**Academic Dishonesty.**
Acts of cheating or plagiarism in MMBB 154 can result in an automatic 0 for that exam. A zero on any one exam or assignment can result in an automatic F as a final grade in the course. Please be aware that all parties involved in the act of cheating or plagiarism will be penalized. Cheating refers to the acquisition of answers to test questions in a dishonest fashion. Plagiarism is defined as 1) the use of another student's writing as your own and/or 2) the use of writing from published sources without citation. Plagiarism includes copying or paraphrasing another's writing with slight changes of wording.
Refer to the Student Code of Conduct of the Faculty Staff Handbook.

**Learning Outcomes**

Students will have general knowledge about:

The history of microbiology
properties of microorganisms
Prokaryotic structure, growth and nutrition requirements
Bacterial metabolism and genetics
Bacterial infectious diseases
Viral structure
Viral infectious diseases
Fungi and protozoa
Physical and antibiotic control of microorganism
Environmental microbiology Food microbiology

Students will have an appreciation that microorganisms

- are used as models to study basic biology, genetics, metabolism and ecology
- play an integral role in infectious disease
- are ubiquitous
- and their products are essential in biotechnology, fermentation, medicine, and industry
- Microorganisms are required for all life on the earth

UI's Academic Calendar- http://www.uidaho.edu/registrar/classes/calendar

**Tentative Schedule**

| DATE | READING | TOPIC |
|---|---|---|
| 1/10 | Chapter 1 | Introduction to course |
| 1/15 | Chapters1 + 3 | The History of Microbiology |
| 1/17 | Chapters 1 + 3 | General Properties of Microorganisms |
| 1/22 | Chapter 4 | Prokaryotic Structure |
| 1/24 | Chapter 5 | Prokaryotic Growth/Nutrition |
| 1/29 | Chapter 6 | Prokaryotic Metabolism |
| 1/31 | Chapter 8 | Prokaryotic Genetics |
| 2/5 | Chapter 9 | Gene transfer, Genetics (Mendelian principles), Genomics |
| **2/7** | **Exam 1** | |
| 2/12 | Chapter 10 | Airborne Bacterial Disease |
| 2/14 | Chapter 10 | Airborne Bacterial Disease |
| 2/19 | Chapter 11 | Foodborne and Waterborne Bacterial Disease |
| 2/21 | Chapter 11 | Foodborne and waterborne Bacterial Disease |
| 2/26 | Chapter 12 | Soil- and Arthropodborne Bacterial Disease |
| 2/28 | Chapter 12 | Soil- and Arthropodborne Bacterial Disease |
| 3/5 | Chapter 13 | Sexually transmitted and Contact Bacterial Disease |
| **3/7** | **Exam 2** | |
| 3/12 - 3/16 | **SPRING RECESS** | |
| 3/19 | Chapter 14 | The Viruses and virus-like Agents |
| 3/21 | Chapter 15 | Viral Infections of the Respiratory Tract and Skin |

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|---|---|---|
| 3/26 | Chapter 15 | Viral Infections of the Respiratory Tract and Skin |
| 3/28 | Chapter 16 | Viral Infections of the Blood, G.I. and Nervous systems |
| 4/2 | Chapter 16 | Viral Infections of the Blood, G.I. and Nervous systems |
| 4/4 | Chapters 17 + 18 | Fungi and Protozoa |
| **4/9** | **Exam 3** | |
| 4/11 | Chapter 7 | Physical and Chemical Control of Microorganisms |
| 4/16 | Chapter 24 | Antimicrobial Drugs |
| 4/18 | Chpt 25 online | Microbiology of Food |
| 4/23 | Chpts 26&27 online | Environmental and Industrial Microbiology and Biotech. |
| **4/25** | **Exam 4** | |
| 4/29 and 5/3 | No class | Can discuss grade |