BIOL221001: Microbiology for Health Professionals Laboratory
Boston College Summer Session 2016
Summer 2, June 27 – July 15
Monday – Thursday, 4:00 – 6:30 pm

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Office Hours: Open door, by appointment

Boston College Mission Statement
Strengthened by more than a century and a half of dedication to academic excellence, Boston College commits itself to the highest standards of teaching and research in undergraduate, graduate and professional programs and to the pursuit of a just society through its own accomplishments, the work of its faculty and staff, and the achievements of its graduates. It seeks both to advance its place among the nation's finest universities and to bring to the company of its distinguished peers and to contemporary society the richness of the Catholic intellectual ideal of a mutually illuminating relationship between religious faith and free intellectual inquiry.

Boston College draws inspiration for its academic societal mission from its distinctive religious tradition. As a Catholic and Jesuit university, it is rooted in a world view that encounters God in all creation and through all human activity, especially in the search for truth in every discipline, in the desire to learn, and in the call to live justly together. In this spirit, the University regards the contribution of different religious traditions and value systems as essential to the fullness of its intellectual life and to the continuous development of its distinctive intellectual heritage.

Course Description
Exercises in this laboratory course deal with aseptic techniques, microbial cultivation and growth characteristics, staining and bacterial isolation techniques, differential biochemical tests, identification of unknown bacterial species, and testing effectiveness of antimicrobial agents.

Textbooks & Readings (Required)
BI2210 Coursepack: The Manual of Microbiology for Future Health Professionals
Canvas
Canvas is the Learning Management System (LMS) at Boston College, designed to help faculty and students share ideas, collaborate on assignments, discuss course readings and materials, submit assignments, and much more—all online. As a Boston College student, you should familiarize yourself with this important tool. For more information and training resources for using Canvas, click here.

Course Objectives

1. Learning to apply course materials such as fundamental principles, generalizations, and theories to improve thinking and decision-making in a laboratory setting

2. Developing specific skills, competencies, and points of view needed by professionals in this field by providing hands-on laboratory activities similar to those found in hospital settings

3. The student will demonstrate knowledge across cultural settings and will learn the impact of culture, gender, and age on microbiology and infectious diseases as demonstrated by case studies and global epidemiology activities.

4. The student will demonstrate ethical competency pertaining to microbiology as demonstrated by case studies pertaining to the cause, treatment and symptoms of common infectious diseases

Grading

• Pre-lab Quizzes 10%
• Final/Practical 25%
• Reports 30%
• Lab Data Sheets 15%
• Participation 20%

The undergraduate grading system for Summer Session is as follows:

A (4.00), A- (3.67)
B+ (3.33), B (3.00), B- (2.67)
C+ (2.33), C (2.00), C- (1.67)
D+ (1.33), D (1.00), D- (.67)
F (.00)

The graduate grading system for Summer Session is as follows:

A (4.00), A- (3.67)
B+ (3.33), B (3.00)
B- (2.67), passing but does not count toward degree
C (2.00), passing but not for degree credit
F (.00)

All students can access final grades through Agora after the grading deadline each semester. Transcripts are available through the Office of Student Services.
Deadlines and Late Work
Assignments are due at the beginning of the class period on the specified dates. Late assignments will be graded accordingly, losing 10% for each day late.

Course Assignments
It is expected that an average of 8 hours per week of your study time will be spent on class assignments and exercises, listed below.

In addition to readings, students will be required to view short online lectures to supplement lab time. Approximately 6 online pre-lab quizzes will assess this material. Data sheets (DS) on results of a lab will be due the following lab period.

Course Schedule

<table>
<thead>
<tr>
<th>Date/Week</th>
<th>Topic/Readings</th>
<th>Due</th>
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<tbody>
<tr>
<td>June 27</td>
<td>Safety, MIE, Microscopy</td>
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<tr>
<td>June 28</td>
<td>Aseptic Techniques, Simple Stains</td>
<td>DS: Microscopy</td>
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<tr>
<td>June 29</td>
<td>Staining</td>
<td>DS: Simple Stains, Aseptic Technique</td>
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<tr>
<td>June 30</td>
<td>Biochemical Tests: I</td>
<td>DS: Gram, Endospore, Acid-Fast</td>
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<td>July 5</td>
<td>Biochemical Tests II</td>
<td>Foodborne Illness report; DS: Biochem</td>
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<td>July 6</td>
<td>Food Microbiology</td>
<td>DS: Biochem I</td>
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<td>July 7</td>
<td>Epidemiology, Biochemical Tests III</td>
<td>DS: Biochem II</td>
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<td>July 11</td>
<td>Antibiotics</td>
<td>DS: Food Microbiology</td>
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<td>July 12</td>
<td>Mystery Case Study</td>
<td>DS: Epidemiology, Biochem III</td>
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<tr>
<td>July 13</td>
<td>Wrap-up/Review</td>
<td>DS: Antibiotics, Case Study</td>
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<td>July 14</td>
<td>FINAL PRACTICAL EXAM</td>
<td>MIE Report</td>
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Written Work
Summer Session students are expected to prepare professional, polished written work. Written materials must be typed and submitted in the format required by your instructor. Strive for a thorough yet concise style. Cite literature appropriately, using APA, MLA or CLA style per your instructor’s requirements. Develop your thoughts fully, clearly, logically and specifically. Proofread all materials to ensure the use of proper grammar, punctuation and spelling. For writing support, please contact the Connors Family Learning Center.

Attendance
Attending class is an important component of learning, and due to the nature of this course, attendance is mandatory and an integral part of the participation grade. When circumstances prevent a student from attending class, the student is responsible for contacting the instructor before the class meets. It is at the instructor’s discretion as to if the lab work can be made up Students who miss class are still expected to complete all assignments and meet all deadlines, however you cannot make up participation points associated with that class. If circumstances necessitate excessive absence from class, the student should consider withdrawing from the class.
Consistent with BC’s commitment to creating a learning environment that is respectful of persons of differing backgrounds, we believe that every reasonable effort should be made to allow members of the university community to observe their religious holidays without jeopardizing their academic status. Students are responsible for reviewing course syllabi as soon as possible, and for communicating with the instructor promptly regarding any possible conflicts with observed religious holidays. Students are responsible for completing all class requirements for days missed due to conflicts with religious holidays.

**Accommodation and Accessibility**
Boston College is committed to providing accommodations to students, faculty, staff and visitors with disabilities. Specific documentation from the appropriate office is required for students seeking accommodation in Summer Session courses. Advanced notice and formal registration with the appropriate office is required to facilitate this process. There are two separate offices at BC that coordinate services for students with disabilities:

- [The Connors Family Learning Center (CFLC)](https://www.bc.edu/departments/learning-center) coordinates services for students with LD and ADHD.
- [The Disabilities Services Office (DSO)](https://www.bc.edu/departments/disabilities-office) coordinates services for all other disabilities.

Find out more about BC’s commitment to accessibility at [www.bc.edu/sites/accessibility](http://www.bc.edu/sites/accessibility).

**Scholarship and Academic Integrity**
Students in Summer Session courses must produce original work and cite references appropriately. Failure to cite references is plagiarism. Academic dishonesty includes, but is not necessarily limited to, plagiarism, fabrication, facilitating academic dishonesty, cheating on exams or assignments, or submitting the same material or substantially similar material to meet the requirements of more than one course without seeking permission of all instructors concerned. Scholastic misconduct may also involve, but is not necessarily limited to, acts that violate the rights of other students, such as depriving another student of course materials or interfering with another student’s work. Please see the [Boston College policy on academic integrity](https://www.bc.edu/departments/academic-integrity) for more information.