

# Assessment: Course Four Column

## Courses (SCI) - Biology

### BIOL 251 Bergey:General Microbiology

<i>Course Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
<p><b>Cellular structure of prokaryotic cells</b> - Describe the cellular structure of prokaryotic cells and cell walls, and how this information relates to disease processes.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam</b> - Weekly quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 9 of 9 students (01/28/2019)</p>	<p><b>Action:</b> Use of additional in-class worksheets and microscope slide sections. Include more clinical disease examples. (01/28/2019)</p>
<p><b>Microbial growth</b> - Describe requirements for microbial growth, and apply these concepts to strategies for controlling microbial growth in medically relevant situations.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam</b> - Weekly quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 8 of 9 students (01/28/2019)</p>	<p><b>Action:</b> Use of in-class worksheets. Include more clinical disease examples. (01/28/2019)</p>
<p><b>Prokaryotic parasexual processes</b> - Compare and contrast mechanisms of prokaryotic parasexual processes, and describe their relevance to the evolution of antibiotic resistance.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam</b> - Weekly quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)</p>	<p><b>Action:</b> Discuss specific and relevant examples. (01/28/2019)</p>
<p><b>Microorganisms</b> - Describe the diversity and medical relevance of microorganisms.</p> <p><b>Course Outcome Status:</b> Active</p>	<p><b>Exam</b> - Weekly quizzes Exams Oral &amp; written reports <b>Criterion:</b> Passing exams, lecture and</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)</p>	<p><b>Action:</b> In-class group discussion to reinforce content. Include more clinical disease examples</p>

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<b>Next Assessment:</b> 2022-2023	lab quizzes with 70% minimum score		Discuss specific and relevant examples. (01/28/2019)
<b>Host-pathogen interactions</b> - Discuss host-pathogen interactions, using specific examples to illustrate. <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023	<b>Exam</b> - Weekly quizzes Exams Oral & written reports <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)	<b>Action:</b> More in-class group discussions. Discuss specific and relevant examples. (01/28/2019)
<b>Written and oral communication skills</b> - Demonstrate proficiency in written and oral communication skills. <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023	<b>Discussion</b> - Graded lab notebooks Oral & written reports Class discussions <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 9 of 9 students (01/28/2019)	<b>Action:</b> Place more emphasis on oral and written reports (more point value). Include more random, graded oral quizzes of students during lab exercises. (01/28/2019)
<b>Mathematical principles and quantitative methods</b> - Apply mathematical principles and quantitative methods to complete laboratory assignments. <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023	<b>Exam</b> - Lab quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score.	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)	<b>Action:</b> Use of additional in-class worksheets. Include target group activities to work through problem sets. (01/28/2019)
<b>Industrial applications of microbes</b> - List several industrial applications of microbes <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023	<b>Exam</b> - Weekly quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes Passing exams, lecture and lab quizzes with 70% minimum score (01/28/2019)	<b>Action:</b> No adjustments anticipated (01/28/2019)
<b>Biotechnology, and outline the procedure for creating recombinant organisms</b> - Describe examples of biotechnology, and outline the procedure for creating recombinant organisms. <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023	<b>Exam</b> - Weekly quizzes Exams <b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)	<b>Action:</b> Incorporate PCR diagnostic and marker analysis laboratory exercises into course (started this semester). (01/28/2019)
<b>Culturing and identifying microbes to the species level</b> - Demonstrate	<b>Assignment - Lab</b> - Unknown identification exercise	<b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes	

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<p>proficiency in culturing and identifying microbes to the species level.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p>Laboratory exercises</p> <p><b>Criterion:</b> Successful identification of unknowns</p> <p>Demonstrated proficiency in lab exercises and quizzes with a 70% minimum score</p>	<p>7 of 9 students (01/28/2019)</p>	
<p><b>Various pathogens, their mode of action, and the diseases they cause -</b> Describe various pathogens, their mode of action, and the diseases they cause.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam -</b> Weekly quizzes Exams Oral &amp; written reports</p> <p><b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)</p>	
<p><b>Innate vs. adaptive immune responses to pathogen attack -</b> Compare and contrast key features of the innate vs. adaptive immune responses to pathogen attack.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam -</b> Weekly quizzes Exams Oral &amp; written reports</p> <p><b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)</p>	
<p><b>Basic strategies used by human body to defend itself against various microbial diseases -</b> Discuss basic strategies used by human body to defend itself against various microbial diseases (e.g., viral, bacterial, fungal, parasitic)</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Exam -</b> Weekly quizzes Exams Written reports</p> <p><b>Criterion:</b> Passing exams, lecture and lab quizzes with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 7 of 9 students (01/28/2019)</p>	<p><b>Action:</b> Focus on key selected diseases representing each microbial group. (01/28/2019)</p>
<p><b>Aseptic technique, and use of the compound light microscope to observe microbes -</b> Demonstrate proficiency in aseptic technique, and use of the compound light microscope to observe microbes such as bacteria.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2022-2023</p>	<p><b>Assignment - Lab -</b> Laboratory practicals Demonstration of technical proficiency during laboratory exercises.</p> <p><b>Criterion:</b> Passing lab practicals and routine technical proficiency evaluations with 70% minimum score</p>	<p><b>Reporting Period:</b> 2017-2018 <b>Criterion Met:</b> Yes 9 of 9 students (01/28/2019)</p>	<p><b>Action:</b> Incorporate an early "Essential Skills" lab practical dedicated solely to assessing proficiency in essential core skills and techniques (e.g., aseptic technique, microscope use, lab notebook documentation, gram stain). (01/28/2019)</p>

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			<p><b>Follow-Up:</b> I chose to assess BIOL251 because of its comprehensive and relevant content, and importance as a core pre-requisite for the health science programs, especially nursing. Students seeking acceptance to the nursing program generally make up over 75% of students in our A&amp;P classes. Many of these students are non-traditional, older students working and with families. In this course, this semester, I had two very capable students (both employed in the health care field) who started off well in the course, but then after the first several weeks stopped showing up. Both students were earning “B” grades, but neither student formally withdrew, and thus ended up with an “F” for the course. One person apparently had some unexpected personal issues come up and could no longer focus on the course. The other student was taking the course “for fun”, and realized it was going to more difficult and time consuming than he had thought. Both of these students stopped coming to class before the formal drop date, and I do not understand why these two very capable students choose NOT to formally withdraw from the course, and end up receiving grades of “F” (?). Assessment report column information (above) includes evaluation of</p>

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these two students' performance up until the point they stopped attending lecture and labs.  
(01/28/2019)