

**BACTERIAL GENETICS AND PHYSIOLOGY**  
GMS 6038  
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**Goals:**

The goal of this course is to enable students with some microbiology and molecular genetics background to understand the principles of bacterial structure, physiology, growth, and genetics to ultimately be able to :

1. work proficiently with bacteria as tools in the lab for molecular biology,
2. further study bacterial physiology in detail,
3. study bacterial pathogenesis in detail.

The content, style, and focus of the class meetings, discussions, and study materials are open for change.

**Texts:**

The **required** text is *Molecular Genetics of Bacteria* - Third Edition, by Snyder and Champness (A.S.M. Press) available in the Health Center Bookstore. Another excellent resource is the *Escherichia coli and Salmonella* two volume set edited by Neidhardt (A.S.M. Press), which is available online (see link on course web page) as long as you are using a UF computer or connected via VPN. To fill in any gaps, especially for structure and physiology, any general or medical microbiology text will do.

**Grading:**

The grading plan for the course is 50% from the final exam and 50% from class participation and completion of any assignments (e.g. preparation to present material on specific topics for the class). The highest percentage for an A will be 90%, B 80%, C 70%, with pluses and minuses determined by the grade spread.

**Attendance:**

Attendance is expected at all class. If you fail to turn in assignments by their due date, you may be allowed to turn them in late with a grade penalty. If you are unable to attend the final exam, you must have instructor permission ahead of time,

**Tentative schedule:**

Week 1 - Structure, physiology, metabolism, growth; introduction to bacterial genetics  
Handout, Chapters: Introduction, 1-2  
Week 2 - Plasmids, conjugation, transformation  
Chapters 4-6  
Week 3 - Phage  
Chapters 7, 8  
Weeks 4 and 5 - Regulation of gene expression; molecular genetic analysis.  
Chapters 12,13

You should check your email and the course web page: <http://www.mgm.ufl.edu/~gulig/bacgen> daily to look for assignments, reading material, extra notes, etc.

**Academic honesty and integrity:**

Homework assignments may be completed by group effort, but must be submitted individually. Simply copying another student's work without having contributed to it is a violation of academic honesty, and a grade of 0 for the assignment will be given. The final exam is individual effort. Copying from other students, providing information to other students, or using prohibited resources will result in a grade of 0 for the exam. All cases of academic dishonesty will be reported to the Dean of Students.

**Students with disabilities:**

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

This class is for your benefit and development. Please feel free to make comments and suggestions as we progress to mold the course and material to your needs and desires. I look forward to our shared experience.