

BACTERIAL GENETICS AND PHYSIOLOGY
GMS6038
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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. The required text is *Molecular Genetics of Bacteria* - Third Edition, by Snyder and Champness (A.S.M. Press) available in the Health Center Bookstore soon. Another excellent resource that will have some assigned readings is the *Escherichia coli and Salmonella* by Neidhardt (A.S.M. Press). It 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 in the first week, any general or medical microbiology text will do.

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).

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.

Tentative schedule

Week 1 - Structure, physiology, metabolism, growth; introduction to bacterial genetics

Handout; Chapters: Introduction, 1-2

Week 2 - Expression (transcription and translation, protein secretion), Chapters 2, 14

Week 3 - DNA replication Plasmids; Chapters: 1, 4

Week 4 - Phage, Molecular genetic analysis; Chapters: 7, 8

Week 5 - Regulation of gene expression; 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.