

Instructor: Dr. Timothy Johnston
Office: Blackburn Science Rm 357
Phone: 762-6367
Office Hours: Posted outside the office door.
Class meets: 8:30-9:20 am, MWF.
Text: Introduction to Molecular Biology, Peter Paoella
Resources: Molecular Biology of the Cell, Alberts, et al.

Catalog Description: A lecture course which involves discussions of general concepts of DNA structure, replication and gene expression. Current concepts in bacterial and bacteriophage genetics, such as gene transfer, recombination, gene regulation and recombinant DNA technology will be examined.

Prerequisites: BIO300 and BIO333

Purpose: The course will cover both classical bacterial and viral genetics and modern biotechnology. The lectures are designed to give the student an understanding of the concepts of gene expression, as well as the methods used to map genes and study gene regulation. The students will also be introduced to the application of biotechnology in industry and medicine.

Objectives:

1. To provide the students with a detailed understanding of the processes of gene expression and the regulation of gene expression.
2. To provide the students with a detailed understanding of nucleic acid biochemistry.
3. To provide the students with a understanding of the methods used in modern molecular biology.

Attendance Policy: Lecture attendance is required, but role will not be taken. Since, a significant amount of the material covered in class cannot be found in the same detail in the text book, attendance is highly recommended. Make-up exams will not be given without well verified excused absences. The instructor must be notified in advance of the examination day if at all possible when an absence is unavoidable.

Grading: There will be two 100 pt midterm exams and a 100 pt final. Each exam will require a comprehensive understanding of the material given from the beginning of the semester. Reviews of three journal articles approved by the instructor will be assigned latter in the semester. Details will be given then. Together they will be worth 100 points. Letter grades will be assigned on a curve.

Academic Honesty Policy: It is expected that students will do their own work on exams and in writing the paper. Cheating or plagiarism will result in a grade of 0 on the assignment.