

**Microbial Genetics (Bio 5363)**  
**Summer 2007**  
**Tuesday and Thursday, 4:00-5:50 pm, Room BB 3.02.30**

- First Class:** Tuesday, 5 June 2007
- Instructor:** G. Jilani Chaudry, PhD [jilani.chaudry@utsa.edu](mailto:jilani.chaudry@utsa.edu)  
458-6684 (office; BSE 1.646); 458-5221 (lab; BSE 3.404)
- Prerequisites:** Genetics (Bio 2313) and Microbiology (Bio 3713), or equivalents.
- Required Book:** Principles of Gene Manipulation and Genomics, 7th Edition, by S. B. Primrose and R. M. Twyman. Blackwell Science Ltd., 2006.
- Optional Book:** A Genetic Switch, Third Edition, by Mark Ptashne. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. 2004.
- Other Material:** Class notes, handouts, books on reserve, and possibly articles.
- Grading:** Homework, 25 %; 3 Exams, 75 %. **However, I reserve the option to modify these proportions.** No make-up exams without proof of extenuating circumstances, such as serious illness.
- Attendance:** **100 % attendance is required**, and there will be no make-up lecture for those absent. But I will render some help to students who miss a lecture for a serious reason. Note, however, that such help will not serve as the substitute for any class lecture.
- The Course:** The course will cover some aspects of microbial genetics, notably those directly relevant to recombinant DNA. But the major focus will be on the principles and techniques of recombinant DNA. A second focus will be on the biotechnological applications of such techniques.
- Objectives:** The course has four major goals: **1)** The students would learn the relevant genetic attributes of some bacteria and viruses that have facilitated the development of recombinant DNA techniques. **2)** The students would learn the theoretical aspects of various experimental methodologies employed in recombinant DNA. **3)** The students would acquire the knowledge and analytical skills to interpret experimental data. **4)** The students would learn how to plan experimental strategies and select techniques once a project goal is set.