

## **MBIO 3032 – Bacteriology Laboratory**

Spring 2014, N331 Tuesday & Thursday 9am - 12pm

Instructor: Robin Hayes

Office/hours: N255 Tuesday/Thursday 8-9am

E-mail: rhayes@csustan.edu

**Course Description:** An introduction to the principles of laboratory analysis and basic laboratory methods employed when working with bacteria.

### **Course Objectives:**

1. Gain hands on experience and develop skills for isolating, culturing and handling bacteria – aseptic technique, streaking, staining, microscopy, etc.
2. Apply the acquired skill set to identifying isolates from a mixed culture of unknown bacteria.
3. Develop experience and skills in working with others as a team in a laboratory setting.

### **Course Requirements:**

**Prerequisite:** MBIO 3010, or concurrent enrollment

**Text (Required):** Laboratory Experiments in Microbiology, by Johnson and Case, CSU Stanislaus edition. You must purchase the lab manual and you need to bring it to every lab, beginning with the second lab. You cannot use photocopies and you cannot use one that has already been written in. Failure to comply may result in losing points for the lab, being dropped from the course and/or receiving a failing grade.

**Add/Drop Policy:** February 21<sup>st</sup> is the last day to add/drop the course. The universities add/drop policies apply to this course.

**Laboratory:** The laboratory exercises are designed to give you some hands-on, practical experience. In the lab you will learn techniques for culturing bacteria, staining microbes, microscopy, biochemical analysis and much more. You will be evaluated on your ability to master these techniques as well as your understanding of the concepts. In addition, you will learn Good Laboratory Practices so your work is not compromised, cultures are not contaminated and you and your lab mates are safe. Because of health and safety concerns, persistent sloppiness and lack of effort will not be tolerated. If you apply yourself, in the end you will have developed skills imperative, and marketable, to most laboratories.

**NOTE:** If you are immunocompromised for any reason or are pregnant, you need to check with your physician before continuing this class. If either of these cases applies to you, you need to provide a note from your doctor stating that it is ok for you to Participate/be in a microbiology lab. A list of organisms and reagents used can be provided.

**Attendance:** In order to develop skills you must have the experience; for that reason attendance is mandatory. It is your responsibility to be on time and ready to begin. Two absences will result in an F for the course. If you are absent you should arrange to get notes and information from one of your classmates; you cannot get credit for missed labs but you are still responsible for knowing the material. No make-up quizzes or exams will be given.

**Grading:** Your grade is based on the percentage of total points you score, 93-100%=A, 90-92%=A-, 87-89%=B+, 83-86%=B, 80-82%=B-, 77-79%=C+, 73-76%=C, 70-72%=C-, 67-69%=D+ 60-66%=D, less than 60%=F.

Total Points for the course = 600

- a. Two exams (each worth 100pts)
- b. Five quizzes (10pts each)
  - Given throughout the semester (dates are tentative)
  - Given at beginning of class, no make-ups for missed quizzes.
- c. Lab book (10pts/exercise, 25 exercises)  
Points given for each exercise will be based on completeness, correctness, detail in drawings, ability to follow instructions and neatness.
- d. Unknown project report (100pts)

**Course page/ Blackboard:** Occasionally, course material and other information will be placed on Blackboard for your information. It is also here where you will find scores for tests and assignments completed. Check it regularly.