

MI 185 – TOPICS IN MICROBIOLOGY COURSE DESCRIPTION

This course is designed for advanced undergraduate students with a sound background in general biology, who are interested in in-depth exposure to topics of basic and current interest in bacteriology and microbiology. The first half of the course will involve lectures by the Instructor and colleagues on such selected topics. 'Microbiology' by Prescott, Harley & Klein may be consulted for background material for the course. However, handouts that will be posted on the course website cross-referenced to powerpoint displays (also on the website) will constitute the main content of the course. These will be sufficiently complete, although additional material covered in the lectures will also be important.

The second half of the course will consist of presentation by students of papers from current literature. The topics this year are two: Cancer drugs and role of their targets; and Approaches for specific targeting of tumors. Selection of the papers by the students is encouraged; however, the Instructor and the TAs will have a list of recommended publications. Since a paper represents a signpost in an ongoing conversation and search for knowledge, the recommendations will include background materials and other papers that will help put the focal paper in proper perspective. The TAs and the Instructor will be available to help with the presentation. Each student will be expected to give one full length lecture with appropriate, well thought-out, and designed visual (powerpoint) displays. (See 'Student Lecture Guidelines below'). Grading: 55%, lecture presentation; 10% class discussion participation; 35% open book examination (which will comprise all the material presented, including student lectures).

Student Lecture Guidelines

1. You are responsible for the papers assigned to you. The primary paper should be the focus. The supporting papers/reviews should help you to provide the proper perspective.
2. The papers assigned to you ARE NOT the only papers you should read on the topic. You are encouraged to become an "expert" on your topic, and delve into related material.
3. Presentation:
 - a. Plan on speaking for 35 minutes leaving 15 minutes for Q&A. Presentations should be done in a way so as to stimulate discussion and new ideas.
 - b. Be sure to give a thorough but precise introduction to your topic, i.e, give us the BIG PICTURE.
 - c. Know the methods used in your assigned papers (and any other paper you choose to talk about)- how the experiment(s) were performed, what the

experiments answered, etc. DO NOT spend time on the details such as what concentration of salts were in the buffers.

d. PRACTICE your talks before you give them to make sure you are comfortable with the material, have the desired fluency, and are within the time limit. Pay attention to aspects of good public speaking.

3. POWERPOINT PRESENTATIONS and any supporting handouts ARE DUE **THREE DAYS BEFORE** your lecture! Email them to Gwen Liu <gwenliu@stanford.edu>, or Erin Simonds <esimonds@stanford.edu>.

4. Every student in the class is responsible for reading and understanding the (focal) papers assigned to all other students- these are all fair game for your final. Read the papers BEFORE the lecture so you can actively participate in discussions that day. Remember- class participation counts towards your overall grade.

5. The Instructor and the TA stand ready to help you understand your papers.