

Course Outline for MICB 430

The goal of the course is to develop your ability to read, critically analyze, present, explain and discuss contemporary research papers from a range of microbiological and immunological publications. Each month of the term includes a distinct segment. During each segment, pairs of students are expected to read two published research articles and work together to explain the papers to the rest of the class and the faculty facilitator. For the first paper, one student in the pair will present the article and the other student will explain the global context of the article. For the second paper the roles will be reversed.

The faculty facilitator will be responsible for either assigning specific papers for each pair of students or assigning a general subject area or journal that each pair of students can use to select a recent paper to present to the rest of the class. The facilitator is also responsible for evaluating the strengths and weaknesses of each presentation, but students are encouraged to provide constructive feedback to their peers and learn by analyzing the presentation styles of other students. The faculty facilitators are switched every four weeks to expose you to a broad range of subject areas.

1. The most typical segments are: pathogenesis and molecular genetics; pathogenesis and molecular mycology; immunology and cell development.
2. The class will normally be about three hours long each week. This time allows each scheduled pair of students to have 15 minutes to present their paper, 10 minutes to put the paper into a global context and another 10 - to - 15 minutes to discuss the paper with the audience and answer audience questions.
3. Even though each pair will only present and explain up to two papers in each segment everyone is expected to attend each class and participate in the discussions following presentations by other students. Part of the grade depends on participation in discussions of the papers presented by other students.
4. The presentation of the paper should address:
 - a. The question(s) addressed by the paper and the reason(s) the question(s) were important.
 - b. The approach the authors used to answer the question(s).
 - c. The essential results and conclusions from the results
5. The commentary on the global context of the paper should assess the scientific significance of the paper for that area of science. It should consider :
 - a. Whether the work was novel compared to other work in that area of science.
 - b. Whether there were significant flaws or weaknesses in the design of the experiment or the interpretation of the results.
 - c. Whether the conclusions were justified by the results.
 - d. Whether there were other experiments that should have been done to strengthen the conclusion(s).
 - e. Whether new work has been published that either extends or contradicts the conclusions.

6. Each pair of students will be expected to work together to understand the experiments in the paper, research the background and think about the significance of the paper. Sometimes the boundary between the details that should be considered in the presentation and details that should be considered in the commentary on the global context is fuzzy. If that problem arises you will need to consider how to divide up the presented comments to allow a logical development of both parts of the talks but still avoid significant repetition of unnecessary detail between the parts.
7. Whether you are doing a presentation or explaining the global context you should consider and apply the specific ideas in the supplied guideline for presenting seminars.
8. The grade will consider the quality of the presentation of the paper, the quality of the presentation of the global context and a demonstrated participation in most of the discussions. The expected split is 45% for the presentation of the paper, 45% for the presentation on the global context and 10% for participation in the discussions. Participation will be assessed on a scale of 0- to- 10 by judging the quality of the questions asked during the discussions following the presentations and the number of questions asked during the discussions.