Course Director:

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Course Overview & Goals

The goal of “Research Topics in Biochemistry” is to expose you to a wide variety of cutting-edge research projects. The course will begin with lectures on how to read scientific papers and the basic concepts of experimental design and analysis. Faculty from the BMBB Department will then give a series of presentations on cutting edge research. Each faculty member will conduct two sessions. The first will be a broad overview of a research area and the second will focus on a specific paper, dissecting all or part of it in detail.

Feel free to ask questions during the first talk for each speaker. Speakers like to be asked questions because it shows that the audience is interested. So please show our speakers that we appreciate the time that they’re giving to us by asking lots of questions.

Your participation is required in the second session for each instructor. Be sure to read the assigned paper, complete the worksheet and come to class prepared for discussion. The class format will vary among the instructors.

Assignments

Each presenter will assign a research paper, which will be available for download from the course web site (see below). You’re required to study (not just read) this paper before their second presentation. Make sure that you understand it thoroughly.

Each presenter will also create a worksheet with a number of questions that you will answer in your own words after studying the assigned paper. Turn the completed worksheet in at the beginning of the second presentation.
The instructors will grade your worksheets as “Satisfactory” or “Not Satisfactory” based on the EFFORT that you put into them (not on whether the answers are right or wrong). Take these worksheets seriously. They’ll help you prepare for the second presentation and will figure prominently in your grade (see below). Worksheets that are turned in late (or not at all) will receive automatic grades of “Not Satisfactory”.

**How much can you work together?**

You are encouraged to discuss the papers with your classmates. However you are **NOT** allowed to share marked or highlighted copies of the assigned papers, or to discuss or share your answers to the worksheet questions.

**Plagiarism**

As noted above, the worksheets must be completed IN YOUR OWN WORDS. **Do not copy anything from the papers.** Simply paraphrasing or making other edits to the words of others is also unacceptable. The work must be your own, although you may include names and commonly used phrases.

One of the reasons that students have copied or paraphrased from the assigned papers in the past was the fear of getting the answers wrong. That should not be a concern in this class. The worksheets are being graded for EFFORT, not on whether they’re right or wrong. If you make a serious effort and use your own words, you’ll be fine.

**Attendance**

**Attendance is NOT optional.**

Sign yourself in on the attendance sheet ONLY if you are present for all, or nearly all, of the class. **Checking yourself off when you miss a substantial portion of the class constitutes academic misconduct, as does checking off someone who is not attending that class.** These violations are grounds for a grade of “N” and possibly other disciplinary actions.

I don’t keep track of excused versus unexcused absences because you’re allowed to miss three classes without consequences. You would be well advised to hold the free misses in reserve in case you get sick or have some other compelling reason for missing class.

**Grading**

This course is graded S/N. In order to get a grade of S, you must:

- Miss no more than three (3) classes (see “Attendance”) AND
- Turn in at least five (5) acceptable worksheets (see “Assignments”). Note that there are only six (6) assignments.
E mail

This class uses your University E mail address. You are responsible for anything that’s sent to that address!

Class Web Site

Most papers and worksheets will be posted to WebVista. If noted on the web site, the papers and/or will be distributed in class.

Schedule

Sept 6, 13 & 20  David LaPorte
Class overview, peer review, reading papers, experimental design

Sept 27 & Oct 4  Carrie Wilmot
Conducting enzymology in crystals

Oct 11 & 18      Howard Towle
Glucose Regulation of Hepatic Gene Expression

Oct 25 & Nov 1   Kylie Walters
Studying proteasome by NMR spectroscopy

Nov 8 & 15       John Lipscomb
Activating Oxygen Without Getting Burned: Nature’s Strategies

Nov 22 & 29      Lincoln Potter
Natriuretic peptides and their guanylyl cyclase receptors in health and disease

Dec 6 & 13       Jim Ervasti
Duchenne Muscular Dystrophy: Molecular Pathogenesis and Therapeutic Approaches