

Lecture Syllabus
BIO 7040
time: Wed/Fri 1:00 - 2:15pm
Room: Biological Sciences Building 1177

Professor: Dr. Penelope Higgs
Office: Rm. 4121 Biological Sciences
Phone: 313-577-9241
Email: pihiggs@wayne.edu
URL: <http://blackboard.wayne.edu/>
Office hours: to be arranged with students
Other hours may be scheduled on an individual basis.

Objectives:

Students will be given an overview of signaling strategies and mechanisms used by prokaryotes and eukaryotes to sense and respond to extracellular or intracellular stimuli. Students will also be presented with bioinformatic, biochemical, and genetic approaches to characterization of signaling proteins, systems, and networks. Each student will present primary research papers relevant to a signaling system of their choice, and learn how to prepare a funding proposal on a signaling project of their choice.

Course Outcomes:

At the end of this course, students will be able to:

1. Identify common signaling mechanisms employed to integrate and/or disseminate information in prokaryotes and eukaryotic systems.
2. Evaluate bioinformatic, biochemical, and genetic approaches to characterization of signaling proteins, systems, and networks.
3. Design experiments to characterize signaling systems and signaling networks.
4. Write a funding proposal outlining the background, rationale and experiments necessary to analyze a signaling system.

Course Credits: 3-credits

Course Prerequisites: 2200 (Intro Microbiology) or equivalent; 2600 (Intro Cell Biology) or equivalent

Textbook: primary literature and reviews

Withdrawals:

See WSU policy at:

<http://sdcl.wayne.edu/RegistrarWeb/Registrar/policies.htm>

Withdrawals are initiated by the student through the registrar's office via Pipeline, not by the Professor. The Professor will assign

the withdrawal grade based on the following WSU policies and rules regarding grade assignment, repeating and withdrawing from classes:

1. Students who request course withdrawals by **March 29** (last day to withdraw) will now receive one of these notations:

- “WP” Withdrawal with a passing grade earned to date
 - “WF” Withdrawal with a failing grade earned to date
 - “WN” Withdrawal never attended, or no graded work to date
- Grade earned to date will not include lab points; all exam scores will be included (*ie* no drops allowed).

2. Students who do not complete the semester will receive a grade of F if they do not withdraw from class by Sunday, March 29. “Incomplete” grades will not be issued to students in poor standing who are seeking an alternative to a late drop.

- You should familiarize yourselves with these regulations by visiting the Registrar's web site:

<http://sdcl.wayne.edu/RegistrarWeb/Registrar/policies.htm>

Grades: A total of 300 points are possible for this class.

Grading summary:

- Two primary research article presentations of 50 points each
- One presentation/paper worth 100 points
- Participation in class discussion for experimental design worth 100 points

Final Course Grade:

Grades will be assigned based on points awarded in the class. Above 90% of the total points possible will receive an A, 80-90% will receive a B, 65-70% will receive an C, 45-65% will receive a D, below 45% will receive an F. Detailed explanation will be provided during first lecture class.

Lecture Policy:

Every effort will be made to begin and end lectures on time. Please try to be in your seats when class starts and do not leave class prematurely.

Talking in class:

Discussion and questions relevant to course material are highly encouraged in class. Use of cell phones is not permitted.

Cheating Policy:

To acknowledge that most, if not all, students do not cheat, the following

policy will be strictly observed in accordance with the WSU policy on cheating.

1. Any individuals caught cheating will automatically receive a grade of "F" for at least the exam and up to and including failing the class and expulsion from WSU. Charges may be filed in accordance with the university policy on academic honesty (<http://www.doso.wayne.edu/judicial/academic-integrity.htm>). Read this carefully.
2. Absolutely **no talking or communication** among students will be tolerated during the exam.

Student Disability Services:

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services Department. SDS telephone number is (313) 577-1851 or (313) 577-3365 (TTD only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. Please be aware that a delay in getting SDS accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation letters as early in the semester as possible.

Academic Success Center:

The Academic Success Center offers FREE services to help students achieve academic excellence. Students can schedule an appointment with a learning specialist and/or register for a number of useful study skills and time management workshops. Information is available here: <http://success.wayne.edu>