

Instructor: John Rawls
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Meeting times: Tuesday, 11-11:50 P.M.
205 T.H. Morgan Building

Office hours: Tuesday, 12-1:00 P.M. or, by appointment

Website: <http://www.uky.edu/~jrawls/bio425/index.htm>

Course description: This is a seminar course designed for advanced Biology majors, consisting of a series of student presentations based on recent original research articles. Course objectives are two-fold: to familiarize you with the organization and content of contemporary research papers, and to familiarize you with the preparation and delivery of a seminar on a contemporary research topic. Because the seminar topics will concern the role of genes in directing development, prior coursework in genetics and cell biology is strongly recommended. *Extra effort will be required of students who have not taken the Biology core courses in Genetics (BIO 304) and Cell Biology (BIO 315).*

Presentations: Each student will select an article on which to develop a presentation to the class. Each presentation will consist of a 40-minute talk that introduces the work, describes rationales and methods of analysis, presents the results of the work, and indicates future direction of the work. Presentations will be MS PowerPoint-assisted. This presentation will be followed by a 10-minute discussion by members of the class.

You must select an article from the past three issues of the following scientific journals: *Development*, or *Genes & Development*. Each of these is available on-line in the electronic journal system through the UK Library System (you must use a UK network computer to access these journals). Go to the UK Libraries homepage (<http://www.uky.edu/Libraries>) and select "On-line Full-Text E-Journals". For example, enter "Development" as the Journal Name, and hit the Start Search button. You will get a list of available journals that have the word "Development" in their title; select one of the above two journals. You will then get a page entitled Record Detail on which you should select "Open the link in this window". This will put you onto the publisher's homepage from which you can select the volume and issue you want, then browse the contents page for interesting articles (primary research papers only - no Review articles). I recommend that you print out a PDF version of the article you select for reading and use (this is exactly as it appears in the hardcopy journal). Remember, you must select an article from one of the three most recent issues of these journals.

Preparation:

1. Select an article and inform Dr. Rawls *before the second class meeting* (September 4). No later than the evening before that meeting, you must e-mail the relevant citation information to him (see previous "Schedule" on the website. In the case that two students select the same paper, the second student to notify Dr. Rawls must find another paper. If you have any questions regarding the topic, discuss that with him before selecting your topic.

2. Read the article several times, then make an appointment to meet with Dr. Rawls *at least two weeks before your presentation*. This meeting will cover your understanding of the article and provide guidance regarding locating additional materials.

3. Make an appointment to meet with Dr. Rawls again *at least one week before your presentation*. Bring to that meeting an outline of your presentation. This meeting will review the outline and provide guidance on how to download figures and otherwise obtain and organize visual aids.

Grading: Your letter grade for this course will be assigned by Dr. Rawls, based upon the following criteria:

- 100% will derive from his evaluation of your presentation. He will consider evaluations by other students, but this grade will primarily come from his evaluation, based on the student evaluation form below. Extra credit will be allotted to students who present during the first three weeks of the class.
- *Attendance is required at each meeting of the class. Each unexcused absence will lower your grade by 5% points;* allowable excuses are described in the Student Rights and Responsibilities handbook.
- The course grade scale will be A (90-100), B (80-89), C (70-79), D (60-69), E (below 60).

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The following form will be used by the instructor and student peers in evaluating the seminar presented by each student:

BIO 425 Seminar Evaluation Form

Speaker _____
Date _____

Content:

1. Speaker's comprehension of the material (10) _____
2. Specific aims & hypotheses (10) _____
3. Experimental rationales & methods (10) _____
4. Results (10) _____
5. Discussion & conclusions (10) _____

Presentation:

6. Speaking skills & audience interaction (10) _____
7. Effectiveness of visual aids (10) _____
8. Effective use of time & appropriate length (10) _____

Total

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