

Honors option for BCMB3100/BIOL3100/CHEM3100

Instructors: Debra Mohnen & Daniel DerVartanian

Fall Semester 2010

Overall Requirements

Each student must select one primary research paper (**NOT** a review) in the field of biochemistry published within the last year in a high quality scientific journal. There are many journals to choose from including: Science, Nature, Journal of Biological Chemistry, Proceedings of the National Academy of Science (PNAS), the EMBO Journal, etc.

Specific Requirements

1. To take the course for honors the student must **sign up with the Honors office by August 27** or earlier if required by Honors Department) and **email** a confirmation of **your application to Dr. Mohnen by August 31.**

2. By **by 5:00 PM Sept. 28** student must supply Dr. Mohnen with a Xeroxed copy of your selected research paper. **These will NOT be returned so be sure to keep a copy for yourself.** Be sure to label with your **full name and email address.**

3. In the Breakout sessions on **Oct. 5 and Oct 12** the student must speak with Dr. Mohnen to ensure that their selected research paper is approved. Also during this time a date for the oral presentation at the CCRC should be set. Bring your own copy of the research paper with you at this time. Dr. Mohnen should already have her copy which you gave her the proceeding week.

3. By **5:00 PM Nov. 16** student must turn in a detailed outline of their proposed paper to Dr. Mohnen. Please send this electronically to Dr. Mohnen with the subject line: "HONORS paper outline YOUR NAME BCMB3100"

4. Sometime **between Nov. 16 and Dec. 7** all students taking the course for honors will meet with Dr. Mohnen at the CCRC for oral presentations of each Honors paper. The dates and times for these presentations should be discussed with Dr. Mohnen in the breakout session on Oct. 12.

5. The research paper must be turned in to Dr. Mohnen **by 5:00 PM on Dec. 7.**

Each student will be expected to **write a 10-15 page critical review of the research paper** that will be **due on Monday, Dec. 7 by 5:00 PM.**

See the next page for the FORMAT for the paper

The paper should have the following parts:

- 1. A title page** that should include (1) the title of YOUR paper (e.g. Critical review of the research paper by XXXX *et al.* entitled XXXX); (2) Followed by the FULL citation of the paper reviewed; (3) the statement “In partial fulfillment of BCMB3100 Honors Fall 2009 (or BIOL3100, CHEM3100 as appropriate),” (4), your name, (5) the date
- 2. Abstract:** A coherent, brief summary of YOUR review of the paper
- 3. Introduction:** should provide a background of the area studied in the research paper and end with a clear statement of the hypothesis tested or question(s) asked (be sure to include references). It is expected that you reference and have read other papers outside your selected paper in your introduction.
- 4. Methods and Results:** summarize the types of experiments performed to test the hypothesis and most importantly include a critical description and evaluation of the results of the experiments. The results section **MUST** include a text-based description of the results along with numbered Figures and/or Tables. The Tables must have Table headings and Figures must have figure legends (see below).
- 5. Discussion:** summarize the conclusions presented in the research paper **AND YOUR EVALUATION OF THE PAPER**. End the discussion by proposing what the next step (experiments) should be in the research. (see below)
- 6. References:** give full citations, including titles, of ALL of references that you used. **BE SURE TO INCLUDE THE PAPER YOU ARE SUMMARIZING**. Most references should be published scientific papers. Web-based citations should be used only sparingly or not at all.
- 7. Tables and Figures:** You should include numbered tables and/or figures. You can intersperse these in the text or put the numbered tables and figures on separate pages after the References. All figures require a figure legend and the content of figures and tables must be described in the text. You must mention each figure or table at least one time in the text (i.e. “see Fig. 1”, etc). You **MUST** also acknowledge (with a citation) any figure or table you take from a paper.

NOTE: DO NOT PLAGIARIZE. Write the paper using your own words.

Any suggestions you have to improve Honors BCMB/BIOL/CHEM 3100 the experience would be appreciated.