

Comparative Developmental Biology
Biology 475/675 (3 Credits)
T/R 12:30-13:45 pm
Education Building (EB) 128

Portfolio of Understanding

A large portion of your grade (60%) will be based on the quality of evidence you provide demonstrating your understanding of the concepts explored in this course. Portfolios should be updated on weekly as you prepare for, or reflect on, each class period. All entries in the portfolio must be dated.

What is a portfolio of understanding?

- *'a collection of student's work that exhibits the student's efforts, progress, and achievement in one or more areas'* –Paulson et al., 1991
- *'a cumulative and ongoing collection of entries that are selected and commented on by the student, teacher, and/or peers, to assess the student's progress in the development of a competency'* –Simon and Forgette-Giroux, 2000

For this course, each student will keep a cumulative and ongoing portfolio that **must** include the following **4** sections:

1. **Inquiry** (2 per class, so 4 per week)
2. **Reflections** (1 per week)
3. **Literature** (Primary literature, 1 per week)
4. **Popular press articles** (1 per week)

You will turn in your portfolios on **3 occasions**, each worth **80 points**. Each time they are collected I will check for demonstration of understanding. You **must** bring your portfolios to class **every** class period. Failure to have your portfolio when called for assessment will result in a 25% reduction in the final grade for that assessment period (if you know you are going to miss a class period send your portfolio with a friend or contact Dr. Biga directly). Each section is worth 20.0 points at each evaluation.

1. **Inquiry**, this section is meant to challenge your knowledge and learning. This section must include evidence of going beyond 'surface-level' inquiry (beyond definitions):
 - a. At minimum, this section must include questions you have regarding the material. These questions must be outside of questions I pose to the class, and demonstrate a level of critical thinking.
 - b. Further evidence in this section could include posing hypotheses and predictions regarding the questions, attempts at answering your questions, creating potential exam questions and justifications of the answers, identification of misconceptions and preconceptions.

2. **Reflections**, this section is about you and how you process the information. I want to know how you feel about the material, what you think (I know, a first), and how the material fits in your everyday life (whether it is work or personal life):
 - a. At minimum, this section must include your thoughts/reflections about the material presented in lecture or in the books/primary literature. These thought and reflection pieces should be done on a weekly basis and be no less than 1 page in length.
 - b. Further evidence could include revisiting these reflections and identifying misconceptions or misunderstandings of the material, additional literature to complement the material covered in class.

3. **Literature**, this section will test your ability to locate relevant primary literature sources on topics we are covering in class. This is important because primary literature is where we for information, it is where new (and even old) knowledge in science is located:
 - a. At minimum, this section must include primary literature articles that you have found that are related to the topics we are covering. These articles should be of interest to you. This literature must be literature used as supplementary information outside of required readings. You also must include a synopsis of this article (like an annotated bibliography entry) that explains the major aspects of the article.
 - b. Further evidence in this section could include answers to discussion questions, additional literature that complements the assigned literature. Additionally, you could also include articles that refute or support the work in the article you chose. Remember what reputable sources are.

4. **Popular press article**, this section is designed to create a habit for you to check the news! Developmental biology is a fairly broad scientific field and includes topics that are fairly controversial. There are numerous popular press articles related to course material, and this will broaden your awareness of how science is reported in the media:
 - a. At minimum, this section must include one popular press article per week that is related to the course in some way. These articles should be of interest to you, as you will need to provide a synopsis of these articles explaining their relevance, accuracy of information, sidedness, any potentially damaging (to science) or information left out of the article. Make sure to note if the article is directly related to a primary article and if the authors of the popular press article did the primary article justice in their reporting.
 - b. Further evidence in this section could include additional supporting documents related to the article, a commentary about the article, similar or refuting articles, etc.

Throughout the semester, additional points will be given and weighted for evaluation of your improvement of understanding as evidenced by documentation (written response) to the comments received in previous evaluations.

A minimum level of understanding is equivalent to a C grade (70%). Additional evidence presented will earn a B grade (80%) and the quality of the evidence (how thorough of an understanding you have evidenced by your ability to make connections among the concepts across the semester) can earn an A grade (90%).

An 'A' grade will be evidenced by creative and critical thinking and the ability to synthesize and integrate the material from the course. (*Simply going through the motions will not get you an 'A'.*)