

ANIMAL BIOLOGY

Bio 3840/7840
Spring 2008
Dr. Carruth

Assignment: Animal Biology Diversity Portfolio

Due dates: Jan. 31: Topic due
April 10: Outline due
April 24: Final portfolio due

All of these items will be due at the BEGINNING of class and must be typed following the format described below.

Point value: 100 points (20% of final grade)
Topic = 5 points
Outline = 10 points
Remaining portfolio = 85 points

During the semester you will create a portfolio that focuses on accurately describing and detailing the life history, anatomy/physiology, evolution, and behavior of a class or subclass of animals we will be learning about this semester. Make your decision only after reading the text and looking up many different options. You can choose any class or subclass of animals represented in your textbook. Pick something that you aren't familiar with!

Where can you find this information? Start with your textbook but that is only one source. Please use books, other textbooks, journal and magazine articles, documentaries, articles in the Science Times, Science News, Science Direct or other daily science information services, or any other source you can find. You can use websites only if first approved by Dr. Carruth. Wikipedia will not be allowed! You can use it as a starting point to help you find information but not as a final source.

The following sections must be included in your portfolio:

1. Topic: What phyla, class, or subclass, or order are you investigating? List at least five representative species. **5 points**
2. Outline of portfolio sections including as much information as possible. This is to keep you from waiting until the last minute! **10 points**
3. Construct a hypothetical cladogram that includes all sister classes/phyla and representative inclusive species. Dr. Carruth will provide you with the defining features to use to construct the cladogram depending on the class or subclass you choose. These will be provided by Feb. 7th. **18 points**
4. Life history including reproduction, development and behavior. **22 points**
 - a. minimum (more is nice...) of five pages typed and double-spaced.
 - b. include information on why this animal group is important and why we should learn about it as well as any information on connections of this group with other groups,

- controversies related to the group. Also include a general principle we've learned in class or which is in the textbook and show how it relates to this group.
- c. include figures and/or photographs (not part of page total) at the end of the section on a separate sheet, not embedded in the text.
5. Defining features of group. **16 points**
- a. include a table or list that has the defining features of the phyla your group belongs to as well as any characteristics that are unique to this group.
 - b. describe anatomical and physiological features that allow this animal to adapt to its environment.
 - c. Make and include in your portfolio 3 powerpoint slides that reflect what you feel is the most important information someone should know about this group of animals. These slides will be due BEFORE the final portfolio but also included in the final copy. The due date for your slides will depend on the class or subclass you're researching and will be determined by Dr. Carruth and provided to you by Feb. 7th.
6. Current scientific research on your class or subclass—use the library to conduct a search (Web of Science etc) and describe the research, published in peer reviewed journals only, that is being conducted on your class or subclass. Find a minimum of TWO papers and write a 1-2 page synopsis of each. **12 points**
7. The hierarchical taxonomy of one species in your group from phyla to species and include the common name. **5 points**
8. References cited to document sources used (see format below). **12 points**

Please note that you must turn an electronic copy of this assignment into Dr. Carruth via email (from your GSU email account only) on April 24th by noon. Your portfolio will be run through plagiarism detection software. DO NOT send the paper to me as a Microsoft 2007 (docx) document! Only use Windows XP, 2002 or 2004. DO NOT embed pictures in the text, instead put them on a separate sheet(s) as an appendix at the end of the document.

References Cited Format:

Citations: When mentioning and also when quoting the work of other people, you must credit the author(s) both within the text, immediately after the mention, and in a separate section at the end of your paper. The references section is not included in the page limit requirements listed above. You can use the format of any scientific journal as long as you include the authors' names, year of publication, title of the article, name of the journal, volume number and pages.

Example of in-text citation:

It has been reported that American students are falling behind their foreign counterparts in math and science knowledge (Smith et al., 1996; Knight and Day, 1997). If you cite a book please give the page number(s).

Example of References Cited section (put at the end of your portfolio) in alphabetical order:

References Cited

Author1, Author2 (Year) Title with only first letter capitalized. Journal Name Volume#: first page-last page.

Journal articles:

Knight, L. M. and A.B. Day (1997) The state of education in the United States. Educational Review 36: 12-18.

Smith, C.D., E.F. Jones and G.H. Lee (1996) Measurement of student performance in 28 countries. Journal of Secondary Education 2: 234-567.

From a book:

Book, I.M. (1999) Post-secondary Education in the United States. Podunk University Press, Podunk, OH, 127 pp.

Website:

Name of site, date accessed, complete URL

Make a copy of your portfolio (in case someone's dog eats it) before you hand it in!

NOTE **Plagiarism** will produce severe penalties, such as a ZERO for your final grade in the class and you will be reported to the GSU Biology Department and to the Dept. of Academic Integrity. If you copy the words of another without giving credit that is plagiarism (see the GSU General Catalog). Give credit where it is due. Write your paper **IN YOUR OWN WORDS!! DO NOT COPY** from websites.