

**ANSC644:** Lectures will be on Tuesdays and computer laboratory on Thursdays. On Thursdays lecture topics started on Tuesday will be completed, and/or we will be doing assignments, or working on individual or the group projects.

**Assignments:** All assignments are **due one week after they are assigned.**

**Office Hours:** Monday 12:00 - 2:00, Thursday 12:30 - 1:30, Friday 10-11. I am happy to meet with you at other times. The best way to set up an appointment is by email: [schmidtc@udel.edu](mailto:schmidtc@udel.edu)

**Textbook**

## Overview

The objectives of this course are:

- Introduce the concepts of data storage and retrieval.
- Provide an understanding of web accessible bioinformatics applications including how data is processed and how to interpret results. Some of the concepts, databases and programs may include:
  - Literature Databases such as [PubMed](#) and [iHOP](#)
  - Nucleotide Databases including [NCBI](#), [EMBL](#) and [DDBJ](#).
  - Protein database including [UniProt](#) and [PIR](#).
  - Pairwise Alignment
  - Multiple Sequence Alignment
  - [Blast](#)
  - Protein Domains and Motifs
  - Phylogenetic Analysis and Tree Building
  - Genomics

**Grading:** Grades will be based upon laboratory assignments, two exams, an oral presentation the individual term project and the group project. There will be no final exam. I encourage students to discuss and help one another with the assignments. **However, the final write up must be done independently!** The final grade is calculated as follows:

- 50% Term Project and Oral Presentation
- 25% Exam
- 25% Assignments

**All enrolled students must attend all student presentations or final grade will be reduced one letter grade for each session missed.**

Typically grades are assigned as:

- A = 90 -100%
- B = 80 - 89%

- C = 70 - 79%
- D = 60 - 69%
- F = <60%

**Academic honesty:** Academic honesty is a prime responsibility of every student. Students found guilty of academic dishonesty will incur sanctions provided for through the University Undergraduate Student Judicial System. As much of this course is done using Internet resources, I remind you that **cutting and pasting from web resources** is plagiarism. Also, any written work should be accompanied with an appropriate list of references.

**Behavior:** Abusive behavior, either verbal or physical, will not be tolerated in class and can result in dismissal from this course. Please refrain from checking email and IM chatting during class!

### **Program and Course Learning Outcomes**

1. Attain effective skills in *(a)* oral and *(b)* written communication, *(c)* quantitative reasoning, and *(d)* the use of information technology
2. Learn to think critically to solve problems.
3. Be able to work and learn both independently and collaboratively.
4. Understand the diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences.