

CS 3824: Introduction to Computational Biology and Bioinformatics

Syllabus

Fall, 2015

1 General Course Information

CRN	82197
MEETING TIME	12:30 PM–1:45 PM; Tuesday/Thursday
CLASSROOM	McBryde 308

Instructor: Lenwood S. Heath

- **Office:** 2160J Torgersen Hall
- **Office Hours:** 9:00–11:00 Tuesdays and Thursdays
- **Email:** heath@vt.edu

Teaching Assistant: Doaa Altarawy

- **Office Hours Held in:** 2160U Torgersen Hall
- **Office Hours:** 2:30–4:30 Mondays and Fridays
- **Email:** doaa2012@vt.edu

Web Site: <http://courses.cs.vt.edu/cs3824/Fall2015/index.php>

Piazza: Sign up for Piazza here

<https://piazza.com/vt/fall2015/cs3824>

Scholar: Used for grades and homework submission.

Prerequisites: CS 3114

Required Textbook: An Introduction to Bioinformatics Algorithms. Neil C. Jones and Pavel A. Pevzner. The MIT Press, 2004. ISBN: 978-0-262-10106-6.

Books On Reserve: For current list, see course Web site.

2 Course Description

This course introduces computational biology and bioinformatics (CBB) through hands-on learning experiences. The emphasis is on problem solving in CBB, especially through algorithms. The breadth of topics covered include a subset of the following: structural bioinformatics; modeling and simulation of biological networks; computational sequence analysis; algorithms for reconstructing phylogenies; computational systems biology; and data mining algorithms.

3 Grading Policy

Grading for the course is on a 1000-point scale, with the points distributed as follows:

Homework assignments: 6 at 100 points each	600
Course project:	400

All homework must be prepared with L^AT_EX¹ or other word processing system and submitted as a PDF through Scholar on the due date². Use of L^AT_EX is **strongly** recommended, though not absolutely required. **No late homework will be accepted.** There is a course project that will require collaboration among two or three students as a project team. See details on the course web site.

4 Readings

For most classes, there is a reading assignment to be completed by class time. See the course web site about one week prior to the class date.

5 Ethics

The Honor Code applies. All homework submitted must be the student's own work. A student may solicit help with homework assignments only from the instructor. However, the course project is done in a collaborative fashion that does allow students to work as a team.

6 Announcement

If any student needs special accommodations because of a disability, please contact Professor Heath during the first week of classes.

¹See L^AT_EX resources on the course web site.

²See due dates on the course web site.