

CS 3824: Introduction to Computational Biology and Bioinformatics

Syllabus

Fall, 2011

1 General Course Information

CRN	97828
MEETING TIME	3:30 AM–4:45 AM; Tuesday/Thursday
CLASSROOM	McBryde 223

Instructor: Lenwood S. Heath

- **Office:** 2160J Torgersen Hall
- **Office Hours:** 9:30–11 Tuesdays and Thursdays
- **Email:** heath@vt.edu

Co-Instructors: Yang Cao, T. M. Murali, and Alexey Onufriev

Web Site: <http://courses.cs.vt.edu/cs3824/Fall2011/index.php>

Class Listserv: CS3824.97828@listserv.vt.edu

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 class 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, printed, and submitted in class on the due date². Use of L^AT_EX is **strongly** recommended, though not absolutely required. **No late homework will be accepted.**

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 work submitted must be the student's own work. A student may solicit help with homework assignments only from the instructors. 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 Calendar on the course web site.