CS 3824: Introduction to Computational Biology and Bioinformatics

Syllabus

Fall, 2014

1 General Course Information

<table>
<thead>
<tr>
<th>CRN</th>
<th>82158</th>
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<tbody>
<tr>
<td>MEETING TIME</td>
<td>12:30 PM–1:45 PM; Tuesday/Thursday</td>
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<tr>
<td>CLASSROOM</td>
<td>McBryde 224</td>
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</tbody>
</table>

Instructor: Lenwood S. Heath

- Office: 2160J Torgersen Hall

- Office Hours: 10:00–12:00 Tuesdays and Thursdays

- Email: heath@vt.edu

Web Site: http://courses.cs.vt.edu/cs3824/Fall2014/index.php

Class Listserv: CS3824_82158@listserv.vt.edu

Piazza: Sign up for Piazza here

https://piazza.com/vt/fall2014/cs3824

Prerequisites: CS 3114


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:

\[
\begin{align*}
\text{Homework assignments: 6 at 100 points each} & \quad 600 \\
\text{Course project:} & \quad 400
\end{align*}
\]

All homework must be prepared with \LaTeX\ or other word processing system and submitted as a PDF through Scholar on the due date\(^2\). Use of \LaTeX\ 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.

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\(^1\)See \LaTeX\ resources on the course web site.  
\(^2\)See due dates on the course web site.