CS 6824: Advanced Topics in Computational Genomics
Syllabus
Fall, 2012

1 General Course Information

CRN	97521
MEETING TIME	9:30 PM–10:45 AM; Tuesday/Thursday
CLASSROOM	McBryde 329

Instructor: Lenwood S. Heath

- **Office:** 2160J Torgersen Hall

- **Office Hours:** 11:00–12:30 Tuesday/Thursday

- **Email:** `heath@vt.edu`

Web Site: `http://courses.cs.vt.edu/cs6824/Fall2012/index.php`

Piazza: This term we will be using Piazza for class discussion. The system is highly catered to getting you help quickly and efficiently from classmates and the instructor. Rather than emailing questions to the instructor, you are encouraged to post your questions on Piazza. If you have any problems or feedback for the developers, email `team@piazza.com`. You must go to `http://www.piazza.com` and sign up for CS 6824.

Scholar: We will be using `https://scholar.vt.edu/portal` for grades only.

Prerequisites:

- An undergraduate or graduate course in algorithms.

- PPWS 5314 — Biological Paradigms for Bioinformatics — or equivalent coursework in genetics and molecular cell biology

Books On Reserve: For current list, see class web site.

2   Course Description

This course covers the current literature on computational topics related to genomics. These topics may include genome assembly and alignment, alternative splicing, biological networks, genomic compression, genomic signatures, genome evolution, and other topics of interest. Most classes will be run as a journal club, with one or more papers read by everyone in the class and discussion led by one member of the class; the leader will summarize the paper(s) and discussion in a submitted report. The remainder of the class will be devoted to one or more class projects completed by student teams.

3   Grading Policy

Grading for the course is on a 100% scale, with the percentages distributed as follows:

Paper presentation and reports:	30%
Midterm project report:	30%
Final project report:	40%

Each paper report must identify the paper, summarize the paper, summarize key points of the class discussion, and identify opportunities for further research. Each student prepares and submits their own midterm project report, while each final project report is a group submission. All reports must be prepared with LaTeX[1], printed, and submitted on the due date[2]. The due date for a paper report is the class one week after the presentation. **No late reports will be accepted.**

4   Readings

For most classes, there is a reading assignment (see Calendar on web site) to be completed by class time. Each assignment consists of one or more papers.

5   Ethics

The Honor Code applies. All paper reports submitted must be the student's own work. Since class projects are group work, students may collaborate on midterm and final project reports.

6   Announcement

If any student needs special accommodations because of a disability, please contact the instructor 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 Calendar on the course web site for midterm and final project reports.