Course Description


Student Learning Outcomes

You will be able to use algorithm design and analysis to solve and study computational problems in molecular biology. This will then allow you to choose wisely classical algorithms for biological data analysis, or to design more efficient algorithmic solutions. In general, the algorithmic computer science training and the mathematical and analytical maturity achieved in this course will allow you to adapt bioinformatics analyses to the technological changes in molecular biology.

Instructor Information

Oliver Eulenstein (oeulenst@cs.iastate.edu)  
Office: 212 Atanasoff, 294-2407  
Office Hours: By appointment; also feel free to drop in whenever my door is open.

TA Information

Kannan Sankar (ksankar@iastate.edu)  
Office: 108 office & Lab Building  
Office Hours: TBD  
You can also email him and arrange a meeting.

Office hours are provided to answer any questions that you may have regarding lecture material, exams or homework. Please take advantage of this opportunity.

Class Time and Place

Meets M W F from 11:00 to 11:50 am in PHYSICS 0043

Exams

There will be two midterm exams and a final exam.

- Midterm I will be held during class time on Sept, 28th (Monday). The last day to appeal the exam is Oct. 3rd.
- Midterm II will be held during class time on Nov, 2nd (Monday). The last day to appeal the exam is Nov. 6th.
Fall 2015 BCB567 Syllabus

- Final will be held on Dec, 15th (Tuesday) from 9:45 am to 11:45 am. The last day to appeal the final is Dec. 23rd.

There will be special office hours dedicated for you to see your exams, which will be announced later.

An exam appeal must be in writing and provide information to include the number of the question under issue and a brief statement giving the reason for the appeal. This written statement and the original exam must be given to the instructor during the specified appeal period.

**Assignment Guidelines**

Homework will be distributed frequently through BbLearn, and it is every student's responsibility to check Blackboard regularly for latest assignments and announcements.

**Submission and Formating Requirements:**

- Regularly, homework will be posted every TBD and will be due at 5:00pm on the following TBD.
- Late submission will be accepted until 5:00pm the coming Thursday with a penalty of 25%.
- No submission of homework will be accepted after that time point.
- Homework will **have to be typed**. Do NOT submit photocopy/scans of handwritten homework. We reserve the right to NOT grade homework that do not follow the formating requirements.

*There will be a 5 business day window of appeal for each homework beginning the day the graded homework is available on BbLearn.*

**General Requirements:**

- When proofs are required, do your best to make them both clear and rigorous.
- Even when proofs are not required, you should justify your answers and explain your work.
- When asked to present an algorithm, you should analyze or explain the correctness of the algorithm.

**Grading Policy**

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homeworks</td>
<td>20%</td>
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<tr>
<td>Midterm Exams</td>
<td>20% each</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
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**Textbook**
Introduction to Bioinformatics Algorithms
Author(s): Jones, N.C. and Pevzner, P.

Some additional material will be covered from the following texts:

Introduction to Algorithms
Author(s): Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein

Bioinformatics for Biologists
Author(s): Pavel Pevzner, Ron Shamir
Amazon link: http://www.amazon.com/Bioinformatics-Biologists-Pavel-Pevzner/dp/1107011469

The primary resource of course material is the course lectures. Recording or photography of lectures without written permission is prohibited.

Academic Dishonesty
The class will follow Iowa State University’s policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/ academic/misconduct.html

Disability Accommodation
Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

Dead Week
This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook http://www.provost.iastate.edu/resources/faculty-handbook.
Harassment and Discrimination

Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.

Religious Accommodation

If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

Contact Information

If you are experiencing, or have experienced, a problem with the issues academic dishonesty, disability accommodation, dead week, harassment and discrimination, or religious accommodation, email academicissues@iastate.edu.