Biology 3S03

Bioinformatics

Elementary Sequence Analysis

Contact Us

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Course description

Lectures	-	Mon/Thur 12:30-1:20pm	BSB 119
	-	Tues 1:30-2:20pm	BSB 119
Tutorials	-	Mon 11:30-12:20	Location JHE 234
	-	Mon 1:30- 2:20	Location JHE 234/A
	-	Tue 11:30-12:20, 12:30-1:20	Location JHE 234
Website	-	http://helix.mcmaster.ca/courses.html	
Text	-	http://helix.mcmaster.ca/3S03.pdf	

Tutorials / Assignments

- Tutorials:
  - Try to go to your tutorial
  - Help in the completion of the assignments
- Assignments (9 in total)
  - Questions related to the lectures, requiring the knowledge and use of bioinformatics tools
  - The assignments are due any time before Wednesday 5:00 pm
  - Answers will be posted at Wednesday 5:01pm
  - Late assignments cannot be accepted
  - New assignments are posted Wednesday after 5pm.
  - NOTE: the last assignment is due day **after** classes end
  - Completed assignments (pdf copies only) should be submitted to Avenue

Course Evaluation

- Quiz 1 (50 minutes) 20%
- Quiz 2 (50 minutes) 20%
- Tutorials / Problems 40%
- Quiz 3 (2 hours) 20%

Quizzes and Problems are cumulative.

You can work jointly on problem sets but the report is yours alone and must not be copied from or with another student. Plagiarism will result in a grade of zero and potentially dismissal from the course.

Learning objectives

Genomic data is now found in nearly all biological industries and biological endeavors, a basic understanding on how to exploit this data has become indispensable for scientists as well as other technical professionals. A familiarity with genomic data how to gather, analyze, and interpret it, is needed to succeed in most sectors of the life sciences, biotech and biomedical industry.

From this course, you will:

- Receive a basic introduction to the field of bioinformatics
- Learn how sequence data is generated, where it is stored, and how to obtain it.
- Learn the basics behind the major methods and tools used in bioinformatics
- Be prepared to use elementary sequence analysis in your own work
- Have built a solid foundation of knowledge and of the vocabulary necessary to communicate with others who use these tools and to learn more about bioinformatics.

The fine print

Some legal'ease fine print — required by the university.

1. ACADEMIC INTEGRITY LANGUAGE FOR COURSE OUTLINES
You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.
Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.
It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at www.mcmaster.ca/academicintegrity.
The following illustrates only three forms of academic dishonesty:

- Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.

4. ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES
Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy.

5. REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK McMaster Student Absence Form (MSAF)
In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

6. ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)
Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

All is subject to change

"The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes"

— required by the university.