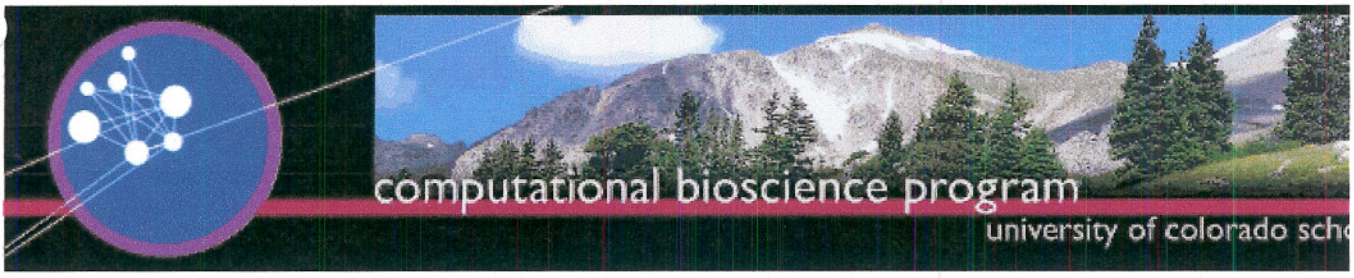

BIOI 7605: Ethics for Bioinformaticians

Certain Tuesdays from 10am-noon
RC-1 North Tower, Room P18-6107
Anschutz Medical Campus, UCDHSC

Prof.
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Prof. Mark
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Office hours by

Course description

The course will familiarize students with the ethical underpinnings of bioinformatics research. By t course, students will have a vocabulary and framework by which to recognize, discuss and respons ethics in computaitonal biology research. This course is central to the educational mission of our Co Bioscience PhD program.

Goals for the course: The course will familiarize students with the *bright lines* (that ought not to b the course of research), the *big picture* (that contextualizes bioinformatics research in the wider wo *deep questions* (that our research activities could address). Specific learning objectives include:

1. Become familiar with the major codes of ethics governing research in computational biology cognizant of examples of major lapses in biomedical research ethics.
2. Understand the broad national, international and social values that drive computational biolo priorities and activities.
3. Explore some of the major questions in ethics and values generated by contemporary biomed with particular emphasis on those relevant to computational biology, such as the protection c
4. Gain experience applying ethical principles, concepts and values to the conduct of research, in computational biology and biomedical informatics.
5. Create a strong foundation for one's own ethical behavior throughout a career.

This isn't a lecture course. Each of the two-hour sessions will involve the students directly in discu playing exercises and other active learning approaches. Students will also be involved in selecting covered and the methods by which we investigate them.

News

- The international healthcare comparisons that Prof. Yarborough mentioned in class on Dec 2 here.
- The article I mentioned in class about "Best Practices" for academic research record keeping -- i subscription journal (*Academic Medicine*) and may not be available outside UCHSC. Here's abstract.
- We will meet next on **Dec 2.** We will discuss justice and beneficence issues in biomedicine, proposal to create a "clinical enrichment fund." Course materials are now available.
- We will meet next on **Nov 4.** We will cover intellectual property and science, and the course available now.
- We will meet next on **Oct 21** -- even though Larry said something different in class on the 1· for that meeting are available.
- A followup to our class on money and science: The NIH has suspended a grant to Emory Uni· on Senator Grassley's investigation of principle investigators who failed to follow federal rul reporting consulting income.
- The materials for the Oct 14 class meeting have been posted. Please read them carefully, and (ready to discuss the Conflict of Interest between Health Care Professionals and Industrial Re policy.
- A followup to our personal genetics course: 10 celebrity biomedical researchers are publishing personal genomes in an unrestricted setting.
- The CITI course in Responsible Conduct of Research is now set up properly for you. You shoul(to register with your University affiliation, and do just the RCR course.
- Next class is September ~~23~~ Sorry! We meet the 30th!. Please bring your first portfolio entry email it to both instructors), and prepare by doing the *basic ethical principles* readings listed
- Here are materials for the 23&Me role-playing exercise. Interestingly, shortly after our class th(Style Section had an article about a party thrown by 23 & Me, studded with celebrities during promoting the company by giving samples.
- The class meets for the first time on Tuesday, September 9 at 10am. We will meet in the P18 classroom in RC-1 N on the Fitzsimons campus. The course will meet certain Tuesdays fron for a total for a total of 8 2-hour sessions. We will schedule roughly every other Tuesday, an scheduling in class.

Syllabus

This tentative syllabus will evolve as the course progresses. Please watch here for readings, activiti materials.

1. *Weaving ethics into your life as a researcher; the scientist's role.* We will put this in a specif discussing different perspectives about direct to consumer marketing of genetic tests.
2. *Basic ethical principles and guidelines for the ethical conduct of biomedical research.* Readings: The Nuremberg Code, The Belmont Report International Ethical Guidelines for Biomedi Involving Human Subjects (scroll down for the full text), and The Declaration of Helsinki. We w specific context by looking at how protection of human subjects is discussed in grants and/o forms.
3. How research priorities are set*: the roles of scientific, political and industrial actors.* We will disc recently adopted AMC policy on conflicts of interest between health care professionals and i representatives.
4. The role of trust and trustworthiness in science. We will discuss a hypothetical scenario involv of a laptop with sensitive data.
5. The ownship and control of intellectual property. We will discuss the role of openness and intel property in science with a guest from our Technology Transfer office.

6. How can the benefits of computational biology (and other biomedical research) be shared *fairly*? V role of justice in biomedical research? Of charity and beneficence?
7. *Whistleblowing*: How and to whom to report possible ethical problems, and how best to prep for the consequences.

Grading

You must successfully complete the Responsible Conduct of Research tutorial and self-tests from t Collaborative Institutional Training Initiative. Register for the CITI RCR courses, and complete th "Biomedical Sciences RCR Course."

Each student is expected to create an ethics portfolio, reflecting their reading, writing and thinking topics. The goal is for these portfolios to both allow the teachers to assess the students' work and tc vehicle to organize the student's ongoing ethical devlopment.

You must also participate in classroom exercises and discussions. Unexcused absence from more tl course meeting is grounds for a failing grade.

Honor Code

The Graduate School requires that this honor code be included in all course syllabi.

Education at the Health Sciences Center is conducted under the honor system. All students who have en professional programs should have developed the qualities of honesty and integrity, and each student sh these principles to his or her academic and subsequent professional career. All students are also expecte achieved a level of maturity, which is reflected by appropriate conduct at all times.

Note that our educational mission statement includes even stronger goals for your professional behavior free to raise issues related to those goals in class.

Computational Bioscience Program home page | Professor Hu