

Biology 481/582 FreeStyle Biosciences
Spring 2020

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Office Hours: Thursdays 11-12 PM, Fridays 3-4PM; JA315

Classroom: Jones Annex 218 (Ananda), Thursdays Wed. 7-9 PM



If

**“Science drives technology and technology drives science”,
then *you* need to be an ethical driver.**

Course Description: Exploratory, interdisciplinary seminar-style class utilizing web resources focused on recent developments in Biology and Biology-related areas

Prerequisite: Senior or graduate-level standing or consent of instructor and advisor

Place in Curriculum: Elective class

Course Learning Outcomes: Becoming a modern-day *educated person*. As an example, here is a Harvard University’s list of skills that make an educated person:

- The ability to define problems without a guide.
- The ability to ask hard questions which challenge prevailing assumptions.
- The ability to quickly assimilate needed data from masses of irrelevant information.
- The ability to work in teams without guidance.
- The ability to work absolutely alone.
- The ability to persuade others that your course is the right one.
- The ability to conceptualize and reorganize information into new patterns.
- The ability to discuss ideas with an eye toward application.
- The ability to think inductively, deductively and dialectically.
- The ability to attack problems heuristically.

Learning Objectives: Class will explore what experts, passionate practitioners and artists have to say about the recent advances, emerging challenges and ethical / political conundrums in science and technology, from genetic engineering, neurosciences, informatics, cancer, stem-cell research and aging, to our environment, on TED Talks and other such internet-accessible gems.

Course requirements: Attendance and active participation are mandatory. Each student will maintain a growing list of topics / videos to share with the class at a moment's notice. Graduate students will guide the class on a (self-selected but instructor pre-approved) topic at least once during the semester. The course must start with a music or an art video and end with a short cat or animal video. Most importantly: Immerse yourself into this exploration about the remarkable world around you.

Exams: There will be no exams.

Grading: Grades will be based on the presentations, the write-ups and class participation.

Academic Honesty: New Mexico Tech's Academic Honesty Policy for undergraduate and graduate students is found in the student handbook, which can be found at: <http://www.nmt.edu/student-handbook>. You are responsible for knowing, understanding, and following this policy.

Reasonable Accommodations: New Mexico Tech is committed to protecting the rights of individuals with disabilities. Qualified individuals who require reasonable accommodations are invited to make their needs known to the Office of Counseling and Disability Services (OCDS) as soon as possible. To schedule an appointment, please call 835-6619.

Counseling Services: New Mexico Tech offers mental health and substance abuse counseling through the Office of Counseling and Disability Services. These confidential services are provided free of charge by licensed professionals. To schedule an appointment, please call 835-6619.

Respect Statement: New Mexico Tech supports freedom of expression within the parameters of a respectful learning environment. As stated in the New Mexico Tech Guide to Conduct and Citizenship: "New Mexico Tech's primary purpose is education, which includes teaching, research, discussion, learning, and service. An atmosphere of free and open inquiry is essential to the pursuit of education. Tech seeks to protect academic freedom and build on individual responsibility to create and maintain an academic atmosphere that is a purposeful, just, open, disciplined, and caring community."

Title IX Reporting: Sexual misconduct, sexual violence and other forms of sexual misconduct and gender-based discrimination are contrary to the University's mission and core values, violate university policies, and may also violate state and federal law (Title IX). Faculty members are considered "Responsible Employees" and are required to report incidents of these prohibited behaviors. Any such reports should be directed to Tech's Title IX Coordinator (Dr. Peter Phaiyah, 20D Brown Hall, 575-835-5187, titleixcoordinator@nmt.edu). Please visit Tech's Title IX Website (www.nmt.edu/titleix) for additional information and resources.