INSTRUCTOR TEAM
Pamela Giahi  T/H, TA
Kyle Knutsen  T/H, TA
Darien Murray T/H, TA
Martin Horvath (martin.horvath@utah.edu; 801-891-3477) M, Instructor; T/H, TA
Jade Mulvey  W/F, TA
Karina Cedeno  W/F, TA
Tanner Tavoian  W/F, TA
Markell Kolendrianos  W/F, TA

SAFETY
Risks and control measures specific to the course are found in the Electronic Laboratory Notebook (ELN). Please register your ELN at the link provided here and review the Safety Precaution section.

Register ELN by clicking this link

TEXT
A writing manual Writing Science by Joshua Schimel is highly recommended for this course. Share one copy per student team. If you are continuing with science, get a personal copy.

LAB SECTIONS
Each lab section will be divided into two groups. Each group will do Lab work (e.g. experiments) and Class work (e.g. data analysis / writing) on both afternoons. There will be a 15 min break to switch between Lab (CSC143) and Class (CSC138). One section group will go to Class first (002 T/H; 003 W/F ); the other section group will go to Lab first (004 T/H; 005 W/F); . Please make sure you do not have a schedule conflict from 12:55 - 5 pm on your lab section days: T/H (lab sections 002, 004) and W/F (lab sections 003, 005).

SCHEDULE
MON       CSC208  12:55-1:45 p.m. (all students)

TH-class first, Section 002, CSC138 12:55-3:00 pm AND CSC143 3:00-5:00 pm
TH-lab first, Section 004, CSC143 12:55-3:00 pm AND CSC138 3:00-5:00 pm
WF-class first, Section 003, CSC138 12:55-3:00 pm AND CSC143 3:00-5:00 pm
WF-lab first, Section 005, CSC143 12:55-3:00 pm AND CSC138 3:00-5:00 pm
DESCRIPTION
This lab course explores the structure of DNA, mechanisms and consequences of DNA damage, and how cells repair DNA. DNA is continually exposed to damage causing agents such as sunlight, cosmic rays, and free radicals. From the simplest bacterium to multicellular mammals, each living organism shares vital mechanisms to repair its DNA. Through studying DNA damage and repair we’ll integrate several areas of research including Biology, Chemistry, and Molecular Evolution.

FIRST TWO WEEKS OF COURSE POLICY
Because of the team-driven nature of this course, and because the first few experiments build a foundation for everything that follows, it is most important that students attend class and lab sessions the first two weeks of the course. If attendance during the first two weeks of the course is not possible because of academic or athletic team commitments, please negotiate accommodation before the term starts.

TEAM BUILDING (5% and up to 60% OF YOUR GRADE)
Everyone will be part of a FOUR student team. Teams execute experiments, complete assignments, write lab reports and create an Independent Project. Please be patient during the team building process and treat your team with respect. A PORTION OF YOUR GRADE depends on team FUNCTION CITIZENSHIP. If your team rates you below 100% effort, you will be at risk of losing ALL points earned by the team in Writing, Lab Results and the Independent Project. Keep appointments, be on time for lab experiments, let each other know if you are running late, share work fairly, create a positive enthusiastic team spirit and you will get maximum points!

LAB NOTEBOOK (10% OF YOUR GRADE)
The electronic lab notebook (ELN) should be a record of everything that you do to accomplish an experiment as well as the thinking and analysis that occurs before and after the experiment is completed. We will work on notebook skills throughout the semester and the electronic lab notebooks will count towards the student-earned grade. Notebook checks will occur randomly throughout the semester. You must keep your ELN up to date to earn maximum points. Notebooks will be provided at the beginning of the course. YOU DO NOT NEED TO BUY A NOTEBOOK.

WRITING (20% OF YOUR GRADE)
The course is writing-intensive. Experiments will lead to lab reports, abstracts, and live presentations. These writing exercises will count towards the student-earned grade. Elements of writing style and word choice are as important as scientific ideas. Class work will focus on particular elements. A First Draft will be Peer Reviewed before rewriting a Final Version. Portions of the report will be written as a team. The Discussion section will be written by individual students.

LAB RESULTS (20% OF YOUR GRADE)
Experimental results will generate data that gets entered and analyzed to complete assignments in the Lab Results category. Data quality may count for some of this grade but most will depend on strong effort and positive attitude.
INDEPENDENT PROJECT (25% OF YOUR GRADE)
Student teams will work to design, execute experiments, and describe outcomes for an independent project. We will schedule workshops for idea creation. The IP will result in a Proposal, IRDM Report, and a public talk.

EXAMS (20% OF YOUR GRADE)
Two midterm exams. Each midterm will focus on concepts from the preceding weeks, including experimental procedure practiced in Lab and writing elements discussed in Class. No exam is scheduled for finals week.

MISSED DEADLINE POLICY: Some assignment and quizzes have a hard deadline, meaning points can only earned if submitted on time. Please negotiate accommodations for documented valid reasons as early as possible.

ACCOMMODATIONS: Accommodations (e.g. requests for a make up exam; missed work) will be considered on a case-by-case basis and require documentation verifying the reason accommodation should be considered. Students traveling with athletic teams should take an exam off site. Conferences and interviews can be accommodated immediately upon return to campus so long as this happens before graded exams are returned to students. We do NOT make accommodation for the MCAT exam; please schedule the MCAT or other professional entrance exam to a date/location that does not conflict with course events. Deaths in the family require a Death Certificate. Illnesses, including stress and anxiety, require a doctor’s note with phone number. If possible, accommodations should be negotiated prior to an exam. In the event of a medical emergency, contact the Instructor Team as soon as possible to negotiate an accommodation.

EXAM/ASSIGNMENT REGRADES
Regrade requests should first be made with TAs. We photocopy exams; please do not alter or make any mark on your graded exam prior to a regrade request. If discussion with the TA proves unsatisfactory, students should next contact the Instructor. Upon request by the student, the Instructor may regrade the entire exam/assignment; the final regraded score may increase or decrease.

EXPECTED LEARNING OUTCOMES
See the world the way that scientists do
Wonder, Question, Hypothesize, Test, Measure, Observe, Discover
Identify and describe trends and patterns
Express ideas clearly
Construct arguments based on evidence, logic and reasoning
Relate molecular structure to function for DNA and DNA repair enzymes
See also ELOs for Biology BS degree, especially those related to Information, Systems, Structure and Function, Process of Science, and Communication (navigate to Biology ELO site (Links to an external site.))

CODE OF STUDENT RIGHTS AND RESPONSIBILITIES
Students should at all times adhere to the “Student Code”. Specifically, academic misconduct will not be tolerated. As defined by the code, academic misconduct includes, but is not limited to, cheating, misrepresenting one’s work, inappropriately collaborating, plagiarism, and fabrication or falsification of information. Violations of the code will result in zero points for the assignment (first incident with mitigating circumstances) and may result in further academic sanctions including assignment of a failing grade for the course especially for repeated incidents.

CONTENT ACCOMMODATIONS
The instructors do not grant content accommodation requests as the course content fulfills legitimate pedagogical goals.

COMPLIANCE WITH ADA
The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

Course Summary:

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due Time</th>
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<tbody>
<tr>
<td>Mon Sep 23, 2019</td>
<td>EXAM 1</td>
<td>by 11:59pm</td>
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<tr>
<td>Mon Nov 11, 2019</td>
<td>EXAM 2</td>
<td>by 11:59pm</td>
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