Instructor:
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Office hours: By appointment

TA:
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Course Prerequisites:
BIO 240, PWS340

Course Objectives:
This course is an introduction to Genomics. Among other things we will study the organization and structure of genomes, assembly of physical maps of genomes, sequencing methods and strategies, genome annotation and bioinformatics, comparative genomics, and global expression profiling. It is a required course for students majoring in Genetics and Biotechnology (PWS), Bioinformatics (Bio) and molecular biology (MMBio). It is essential that you be adequately prepared for this class and that you allot sufficient time for individual study and team assignments for the duration of the term.

All writing assignments are to use double-spacing, 12 point font, and 1-inch margins.

Texts:
Read the following book for our book report:
*The Genome War: How Craig Venter tried to capture the code of life and save the world* by James Shreeve (ISBN: 0-375-40629-8)

*Journal articles listed in class schedule*

Software:
Geneious (http://www.geneious.com/)
Evaluation and grading

Your grade will be determined from the following exams:

Your grade will be determined as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Book Review</td>
<td>25 points (3%)</td>
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<tr>
<td>Mid-term Exams (2)</td>
<td>100 points (12% each)</td>
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<tr>
<td>Projects/Presentations (8)</td>
<td>25 points each (23%)</td>
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<tr>
<td>Reading Assignments 1 (8)</td>
<td>25 points each (23%)</td>
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<tr>
<td>Reading Assignments 2 (24)</td>
<td>5 points each (16%)</td>
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<tr>
<td>Final exam</td>
<td>100 points (12%)</td>
<td></td>
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<tr>
<td>Course Evaluation</td>
<td>10 points (1%)</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>605 points</strong></td>
<td></td>
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</tbody>
</table>

- Late assignments will be penalized 10% per day.
- There are no extra credit opportunities.
- The class will not be graded on a curve, so you will not be competing with any other students for a grade.
- Your final grade will be calculated on a percentage basis (of the total 675 points)

<table>
<thead>
<tr>
<th>Cutoff</th>
<th>Grade</th>
<th>Cutoff</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>93%</td>
<td>A</td>
<td>73%</td>
<td>C</td>
</tr>
<tr>
<td>90%</td>
<td>A-</td>
<td>70%</td>
<td>C-</td>
</tr>
<tr>
<td>87%</td>
<td>B+</td>
<td>67%</td>
<td>D+</td>
</tr>
<tr>
<td>83%</td>
<td>B</td>
<td>63%</td>
<td>D</td>
</tr>
<tr>
<td>80%</td>
<td>B-</td>
<td>60%</td>
<td>D-</td>
</tr>
<tr>
<td>77%</td>
<td>C+</td>
<td>&lt;59.5%</td>
<td>E</td>
</tr>
</tbody>
</table>

Individual help

I have scheduled office hours when I can meet with you individually. I have numerous responsibilities and university assignments in addition to this course. As a result I cannot give you unlimited access to me. Office hours are scheduled to provide you with a designated time to ask questions or deal with problems. If you must meet with me at a time other than office hours, please schedule an appointment via email. Please do not consider me rude if I cannot meet with you at a time other than office hours, but I will make every reasonable effort to modify my schedule to meet with you.

You may submit any questions to me by e-mail (jaudall@byu.edu or jaudall@gmail.com).

Final grades will not be given over the telephone. Final grades will be available over the Blackboard systems shortly after they have been submitted.
Book Review

By now (in college), Most of you have written some sort of book review in the past. Book reviews are individual efforts. If you haven't, or if you have forgotten how, here are a few tips:

http://teacher.scholastic.com/writewit/bookrev/
http://www.lavc.edu/Library/bookreview.htm
http://www.bluegrass.kctcs.edu/LCC/HIS/review.html

and more can be found here:

I am not going to give you a specific list of required things to include in the report. Use your best judgment with the guidelines in the sites above to write a good review. A poor review that ignores the tips offered above will be harshly graded. I do not want a synopsis of # pages, author background, and metrics about the written work. It is not required to be a positive review. You should include a discussion of 3-5 main points that the book conveys (or tries to convey). In addition to these guidelines, there is one general question that you should address at some point in your review.

How did the content of this book shape your thinking about biology and genomics?

This assignment is due Sept. 19 at 5 pm. You must submit the assignment electronically using Turnitin (under ‘Assignments’ on LearningSuite). The report should be 3-4 pages.

If reference sources are used for your written assignments, you must include a bibliography. You must use the reference style of the primary source journal Genome Research (http://genome.org). This link (http://genome.cshlp.org/misc/ifora_mspreparation.shtml) has ‘Instructions to Authors’ that informs researcher how to format their papers for submission to this journal. Follow these instructions when formatting your written assignments. Alternatively, examine any published paper in the Genome Research journal and look how the references are cited in the text (e.g. Udall et al. 2008) and formatted in the bibliography. Deviations from this format in either the citations or the bibliography will lose points on your paper!

Turn in a hard copy to me either in class or in my mailbox in the department office (275 WIDB). They must also be turned in electronically by 5 pm to be checked by Turnitin.
Reading Assignments

We will follow the sequence of topics, due dates, and reading material listed in the class schedule. **You are responsible for all announcements made in class, and material covered in class, and adjustments to schedule (even if you are not there).** If you miss a class or come late after announcements have been made, you are responsible to find out from another student what announcements were made and what material was covered. The topics that will be covered on each exam will be announced in class prior to each exam.

For each class period, there is a study guide. You are required to answer all of the questions of the study guide and turn them in at the BEGINNING of class. Late assignments will not be accepted. Excused absences are excused, though you must get approval from Dr. Udall and the TA prior to your absence. Eight of these Reading Assignments (Reading1) will be worth 25 pts or 23% of your grade. The remaining 24 of the Reading Assignments (Reading2) will be graded at 5 pts each and constitute 14% of your grade. The content of Reading2 Assignments will be graded between simply turning it in to very lightly on the content. You will NOT know which Reading Assignments will count heavily to your grade (the 25 pt version) or simply be evaluated if you turned it in (5 pts).

Projects

There are 8 projects and 8 class periods of student presentations. For full credit, you will be required to complete seven of the projects (25 pts each) and present material to the class once (25 pts) for a total of 200 points. Projects can be done as a group and you will be assigned to a group for your presentation. The group membership of the projects does not have to be the same every time; however, no group can consist of more than 5 students.

For the presentation, no group can consist of more than 6 students and you will be assigned to a group, topic, and material for the presentation.
Honor Code

Honor and integrity are among the most aspects of a person’s character. While few, if any, of you may be inclined to be dishonest, a reminder of what it means to be honest is important for everyone. All of us have agreed to abide by the BYU Honor Code, which includes maintaining academic integrity. In addition to the stated items in the BYU Honor Code, the items listed below must be followed for you to be fully honest in your work for this class:

1. Your examinations must represent your own work and not the work of another.

2. Do not discuss the content of exams with anyone (except your professor) until the exam has been handed back. You should not discuss the content of an exam with another individual until the exam has been handed back, even if both of you have already taken the exam.

3. Taking a graded exam that belongs to another student or attempting to find out another student’s grade are dishonest acts and are serious violations of the Honor Code.

Academic dishonesty is very rare at BYU. Most of us are deterred from it by conscience and respect for integrity. Unfortunately, a very small number of BYU students seem to value an undeserved grade above their personal integrity and the commitments they have made. Confirmed violations of any aspect of the Honor Code involving academic integrity will result in a failing grade for this course and will be reported in writing to the Honor Code Office. Cases of theft (such as taking another student’s examination or entering a professor’s office without permission and taking materials) will be reported to University Police and may result in legal as well as academic penalties.

Sexual Harassment Statement

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity. Title IX covers faculty-student, student-faculty and student-to-student sexual harassment. BYU’s policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter unlawful sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment office (422-5895); or contact the Honor Code Office at 422-2847.

Students with Disabilities

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability, which may impair your ability to complete this course successfully, please contact the Services for Students with Disabilities Office (422-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the SSD Office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Employment Office at 422-5895, D-282 ASB.