TRANSITION SCHOOL
BIOLOGY - FALL QUARTER

Instructors: Cristina Valensisi | cvalensi@uw.edu
TA: Rachel Shi | rxshi@uw.edu
Class Schedule: Tues. 9:30-11:20; Thurs. 10:30 - 11:20, and Fri. LAB 8:30-10:20
Classroom: Guggenheim Annex
Laboratory: Hitchcock Hall, 344
Office Hours: Wednesdays 1:30-3:00. Available by appointments.

Course Description
The course is based on the Introductory Biology series offered at UW and UW Bothell. The course will promote an awareness of science by studying the basic principles of Biology. Together, we will embark on an amazing journey: from cells to complex organisms like humans, we will learn how life is regulated, propagated and evolved. As we walk our way through this course, students will discover key principles of the scientific method, get their hands on some basic laboratory equipment and experience the excitement of making experiments. During this course, students will experience the challenge and fast pace of a college-level course. The course is lecture-based and hands-on activities and active learning teaching techniques are the main form of teaching. Each lesson has an instructor-led lecture component and student-led activity component.

Objectives
This course is built around core concepts and competencies inspired by the Vision&Change initiative. To be scientifically literate, students need to understand a few overarching core concepts: evolution; pathways and transformations of energy and matter; information flow, exchange, and storage; structure and function; and systems. This quarter we will focus on the first four concepts. Students will develop the ability to apply basic quantitative skills to biological problems and understand the process of science (observation, experimentation, and hypothesis testing). Students will experience the collaborative nature of science through team activity and will develop core competencies for communication, critical thinking and collaboration. The interactive and student-centered approach used in this course will encourage students to practise the social skills required for respectful scientific debating and addressing misconceptions.

As an instructor, my ultimate goal is to spark interest in science, inspire students to be curious, and see themselves as scientists.

Resources and Communication
The textbook we will use is Biological Science, 7th Ed by Freeman et al., Pearson. Electronic (eText ISBN: 9780135276815 for UPUB or 9780135276945 for PDF format) or print (ISBN-13: 9780134678320). Please, let the instructor or the principal know if purchasing the textbook is a burden, so we can find alternative solutions. Other materials and resources will be provided by the instructor and will be shared on the Canvas site. Canvas is also where most of the communication will take place - assignments and reminders will be posted on Canvas, along with the results of the weekly assessments.
Communication is key to success. Messages over Canvas or emails to cvalensi@uw.edu are equally welcome at any time and I’m committed to respond within 24 hours, although weekends and holidays may be slower.

For parents. I value open communication with families and will welcome any questions or comments parents may wish to share with me. Please know that any communication should be directed to me and not to the TA, even when she is involved in the matter.  
Tip: knowing how to use resources is a valuable skill to have in college. However, when you cannot figure out something, ask questions!

Laboratory Safety
SAFETY FIRST! As this course contains a laboratory component, it is required that on lab days (refer to the weekly schedule I will provide you with every Tuesday), students wear closed-toed shoes, wear clothing that covers their legs, and keep long hair tied back. Labcoats will be provided. Labs will all be Biosafety Level 1 (BSL1, lowest risk), but students are nonetheless expected to handle all materials and organisms with care and caution. BSL1 organisms are safe and do not cause disease in healthy humans. So that I can ensure the safest environment possible for everyone, please advise me if you are immunocompromised so that extra precautions can be taken.

Assessment
Throughout this class, we will use a variety of tools to assess progress and performance. Frequent and comprehensive assessments is a critical component of this class and is aimed to develop an awareness of the skills needed to succeed in a college environment. It is important to remember that grades are a tool for evaluation and improvement rather than a goal itself. Feedback to the instructor and TA are also a valuable resource and always welcome. Participation. This course is designed to be student-centered and inquiry-driven. Participation is therefore critical to succeed and to fully enjoy this course. I will assess students’ participation on a weekly basis. Assignments (whether home or in class/lab ones) will be also assessed on a weekly basis. There will be also team assignments - ability to work as part of team will be one of the critical components of the rubric. All assignments have a due date (generally by the next class, otherwise specified) and assignments turned in late will not be considered. Tip: do not wait for the last minute before the deadline to submit (or complete) assignments! Self-reflection and evaluation. Starting Week 2, students will complete a weekly self-reflection and evaluation assignment (due on Friday 3pm) to assess their progress and goals for the following week.  
Mid-term and Final Exams will be on week 6 and week 12, respectively. The format of the exams will be based on the exams for introductory biology courses at UW.  
Grading and Rubrics. The breakdown of the final grades is as follows: 25% Participation; 25% Assignments; 25% Midterm exam; 25% Final exam. Every assignment that is counted as part of the final grade will have a specific rubric provided to the students along with the assignment.  
Make up for missed assignments/exams. It will be considered on a case-by-case basis and it is guaranteed.
Tentative Course Schedule
The following schedule is a guideline for both students and instructor. While it is an important tool to plan and organize our work, it may be subject to changes to reflect the interests and curiosity expressed by the student in class. Every Tuesday (in class and on Cavans), I will provide a detailed schedule for the week, along with announcements and reminders. Students are solely responsible to receiving the information and promptly ask for clarifications, should they feel they need some. No excuse will be accepted on the premise of “I didn't know…”.

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<th>Outline of Topics</th>
<th>Labs and Activities</th>
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<td>Week 1</td>
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<td>Lab Safety</td>
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<td>Expectations and Shared Values</td>
<td>Metric System</td>
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<td>Definition of Life and Cell Theory</td>
<td>Lab Warm Up</td>
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<td>Week 2</td>
<td>The Tree of Life</td>
<td>Phylogenetic Tree Game</td>
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<td>Taxonomy and Phylogeny</td>
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<td>Week 3</td>
<td>Chemistry of Life</td>
<td>DNA double helix model</td>
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<td>Week 4</td>
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<td>Origin of Life Lab</td>
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<td>Week 5</td>
<td>Central Dogma</td>
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<td>Week 6</td>
<td>Midterm exam</td>
<td>Scientific Investigation Activity</td>
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<td>Week 7</td>
<td>Enzymes and the Cycle of Energy</td>
<td>Cell respiration and Photosynthesis</td>
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<td>Week 8</td>
<td>Mitosis and Meiosis</td>
<td>Chromosome Simulation Lab</td>
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<td>Week 9</td>
<td>Mendelian Genetics</td>
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<td>Week 10</td>
<td>Evolution and Natural Selection</td>
<td>Natural Selection Lab</td>
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<td>Week 11</td>
<td>General Review and Practise</td>
<td>Scientific Literature</td>
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<td>Week 12</td>
<td>Final Exam</td>
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Religious Accommodations Policy
(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/).
Washington state law requires that UW develop a policy for accommodation of student
absences or significant hardship due to reasons of faith or conscience, or for organized
religious activities. Students interested in requesting religious accommodations must contact
the Transition School Principal in writing with their request within the first two weeks of the
course. The written request should include the following information: Student Full Name,
Course(s) that will be affected, Requested Accommodation, Date(s) Accommodation Needed.

Inclusion and Diversity
Creating an inclusive environment where diversity is valued is paramount in my teaching
approach. Diverse backgrounds, embodiments and experiences are essential to the critical
thinking endeavor at the heart of education and learning. Students are expected to respect
individual differences which may include, but are not limited to: age, cultural background,
disability, ethnicity, family status, gender presentation, immigration status, national origin, race,
religion and political beliefs, sex, sexual orientation, socioeconomic status.

Code of Conduct
In this class, respectful language and behavior are expected, no exception or tolerance for lack
of them will be given. Any misconduct will be immediately reported to the principal and the
director of the program and the student will be asked to leave the classroom. Please refer to the
UW Robinson Center Conduct Policies for details.

The Robinson Center is committed to providing a safe and welcoming space to people of all
genders, religions, national origins, races, disabilities, sexual orientations, ethnicities, and
documentation statuses. We will not tolerate discrimination or harassment of any kind.