

**Syllabus** Bio 101 Perspectives in Biology  
Professor: Patricia (Trish) Hartzell, PhD  
Office hours: Wed 3:30-5pm and by appointment

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### **Basic requirements**

1. To pass this class you must attend all classes (**one** unexcused absence is allowed). An excused absence is one that meets the university requirements.
2. Bring the clicker to class every week – it will be used to take attendance and for quizzes in class.
3. Obey the Student Code of Conduct. (<http://www.webpages.uidaho.edu/fsh/2300.html>)
4. No plagiarism. You will receive an F if plagiarism is documented.
5. Mandatory on-line and live quizzes. All on-line quizzes must be taken; you must take the exams on your own without the help of another person.
6. You will be required to score at least **70%** on all quizzes to pass the course.
7. Review basic biology so that you are prepared for college classes.
8. Work on projects as teams; communicate back to the class.

### **Recommendations:**

Purchase a Livescribe paper-based computing platform (2 GB (200 hr of audio; Echo pen ≈\$100 and matrix tablets: 4, 200-page tablets for \$25): a good investment; available at the UI bookstore or through vendors on-line

### **Topics for discussion**

- The timeline of life: natural selection and evolution
- Scientific literature: using Pubmed; Exponential learning: on-line tools
- Why it's good to know chemistry
- Cells
- Life – replicating your DNA; analyzing DNA
- Diversity
- For most living creatures life is: eat, don't get eaten, produce offspring
- Nutrition
- It's complicated: genomes
- Advising, careers in science
- We are walking vessels for microbes
- Cancer
- Genetics
- Development
- Ecology
- Symbiosis – how and why coevolution

### 1. Course objectives

The goals are to review basic biology and chemistry facts and concepts and practice biomath, and writing skills. Time will be spent learning how to use PubMed and NCBI tools. Reviews will be integrated with discussion of careers in science and discussion of research. One advising workshop will be held in class.

2. Learning outcomes are based on the following criteria and are consistent with the **University of Idaho Learning Outcomes**. Students will:

- Review high school biology, chemistry, physics, and math concepts to prepare for university material (**Learn & Integrate**)
- Learn how to review scientific literature and analyze data (**Think & Create**)
- Students will review the rules of good grammar; they will spell properly; they will participate in discussions in class and on-line; they will do short presentations (**Communicate**)
- Students will develop a sense of the ‘big picture’ in science which will hopefully improve retention (**Clarify Purpose & Perspective**)
- Students will learn as much as they can so that they can spread the word about how awesome science is and help education the lay public about complex scientific issues such as global warming, cancer, stem cell research, development, etc (**Practice Citizenship**)