Instructor: Dr. Carrie L. Woods  
  cwoods@pugetsound.edu  
  Thompson 223B  
  253-879-3301  
  Office hours: MF: 11 am-12 pm; T: 10-11 am; or email for appointment  
  **I will respond to most emails between 9 am and 5 pm. You should expect a  
  response within a few hours but it could be up to a day or two.**  

Dr. Stacey Weiss (Thursday lab)  
 sweiss@pugetsound.edu  
  Thompson 223H  
  253-879-2744  
  Office hours: M: 2-4 pm, T: 11 am-12 pm, W: 9-10 am; or email for appointment  

Lecture: MWF 10:00 am – 10:50 am (Thompson 193)  

Labs: We meet the first week of classes. All labs are 1:00 pm – 4:00 pm in Harned Hall 245.  
  AA (Tuesday) IA: Lina Drangsholt (ldrangsholt@pugetsound.edu)  
  AB (Wednesday) IA: Natalie Yates (nyates@pugetsound.edu)  
  AC (Thursday) IA: Lisa Grimm (lgrimm@pugetsound.edu)  

Textbooks: (if you took BIO 111, you should already have the first two books)  
  Pechenik, J. 2009. A Short Guide to Writing About Biology (recommended)  

Course websites:  
Class Canvas site: https://canvas.pugetsound.edu/courses/2797  
  Used for course information and handouts, including the syllabus and schedule, labs and extra  
  readings, and uploading many assignments. Your password is your UPS network password. All  
  of you are already enrolled in the course. You MUST have access to these materials so let me  
  know if you don’t.  

Statistics site: http://edblogs.pugetsound.edu/ecology-statsguide/  
  This is the website that was created for Ecology (BIO 211) but we will be using it for data  
  analysis this semester.  

Library Course Guide: http://research.pugetsound.edu/biol112  
  You will find information on finding articles, writing and citing, Zotero, and plagiarism.  

Email: Your IA’s and myself will be in contact with you with important information through  
  your Puget Sound email. Please check it regularly.
Course Description and Objectives: The vast diversity of life is amazing. The organization and complexity of even the simplest bacteria is mind-boggling. The exuberance of multicellular life that we see around us every day is awe-inspiring. Our lives depend on this diversity. How did all these strange, living beings come to be? Why do they look the way they do? How do they work? These are questions that we can, and should, ask. In Biology 112, we will begin to explore the different facets of evolution and the diversity of living organisms.

This course will provide a general overview of the history and diversity of life as well as the processes and mechanisms – evolution – that lead to this diversity. The course emphasizes some of the fundamental aspects of organismal biology such as reproduction, feeding, and locomotion (or lack thereof). In lecture, principles common to diverse taxonomic groups will be presented with specific examples taken from different organisms.

Expected Learning Outcomes: During this course you should develop…

1) A conceptual framework for thinking about the diversity of life beginning with the fundamentally important process of evolution;
2) The background required for framing biological questions in a comparative and evolutionary context;
3) Familiarity with and perhaps even fondness for some of the organismal diversity that surrounds us providing us with some sense of place;
4) The ability to understand and critically evaluate the primary literature; and
5) Improved scientific writing skills.

Coursework: Your grade in this course will be determined by your participation in lecture and lab, including frequent in-class questions and activities, as well as your performance on the course components listed below.

Lectures: Lecture topics are listed on the attached schedule (also available on Canvas). Prepare for lecture by reading the material assigned in the text and handouts BEFORE lecture. Attending lectures and taking notes is extremely important. We will have many group activities and discussions that you should not miss. I expect you to participate and you should expect that of yourself because participation often leads to a greater understanding of the material.

Your time in class will be most productive if you:

* Prepare for class by studying the reading assignment before the class.
* Come to class on time.
* Engage in thoughtful, effective note taking during class.
* Ask for a restatement or clarification of statements you do not understand.
* Contribute to class discussions.

Following each class, devote 2-3 hours to rewriting your lecture notes, carefully rereading the text material and integrating it with your lecture notes.

NOTE: The syllabus lecture schedule is a tentative one. We may move ahead or get behind. All quizzes and exams will be given on the dates scheduled regardless of where we are in the discussion. I will announce what materials each quiz or exam will cover. Throughout the course I will use Powerpoint and the blackboard to help convey information. My Powerpoint slides will be uploaded to Canvas but they have little text on them. I do not provide copies of lecture notes, another reason to strive to attend every lecture.
Cell phones & Laptops: cell phones should be turned OFF during lecture and lab. You should NOT use a laptop to take notes. I have provided a link in Canvas to explain why.

Lecture exams and quizzes: Exams and quizzes are scheduled during lecture (see Course Schedule). Questions will require that you be very familiar with lecture and lab material. Some questions will require you to apply concepts to novel situations not specifically covered in lecture or lab. Cell phones cannot make an appearance during exams or quizzes.

You will do best on exams and quizzes if you:

- Adopt a “study as you go” policy
- Rewrite (do not type) your notes within 24 h after every lecture
- Don’t wait until a day or two before the exam or quiz to start studying (what if you have two other exams and a 10 page paper due??)
- Organize or join a small study group. Use the group to review information. Practice teaching each other the material. The more you intellectually engage your mind with the topic materials, the more you will learn and the better prepared you will be for the quizzes and exams
- Make sure your class, lab, and study time is specific and focused.
  - Turn off electronic devices and minimize distractions. A shorter amount of focused study time is more productive than a longer period of time filled with distractions.

There will be no opportunity for make-up quizzes: There will be 6 quizzes during the course and you will be able to drop the lowest one. Absence for an exam or quiz or lab for a bona fide medical reason will require a written excuse from your health care provider and MAY OR MAY NOT be considered in assessing final grades. If you have a scheduling conflict with a quiz, the missing quiz score will count as your lowest score. Sports-related and/or other extra-curricular excuses must be cleared with me (email me) AT LEAST ONE WEEK PRIOR TO A SCHEDULED EXAM. I will try to find a time to schedule a make-up exam that is mutually agreeable. In keeping with University policy, the final exam will be given ONLY at the time indicated in the course schedule.

Laboratory: Lab is required. The labs have been designed to help you understand concepts discussed in lecture and to familiarize you with major groups of organisms. Material covered in lab will be included in lecture exams and quizzes. Missing a lab will result in the loss of the points for that week’s lab assignment. During the early labs of the semester we will visit different local habitats and you will become familiar with the major taxa (phyla and some classes) found in these habitats as an introduction to 55 common and/or ecologically important species. Some of our time will be spent on more detailed investigations of mechanisms of evolution, phylogenetics, and organismal form and function. Under extreme circumstances you may be able to reschedule a lab; arrange with me at least one week before the lab. Most of the labs are full and cannot accommodate extra students; only in very unusual circumstances will you be allowed to switch labs. Labs cannot be made up after the last lab section of the week has met (Thursday afternoon).
Lab handouts will be available on Canvas. **You must print out the lab handout and bring it to lab.** Please come to lab PREPARED. Careful preparation before the lab will:

1. allow you to get more out of the lab
2. make it much more likely that you will enjoy the lab, and
3. increase the probability that you will finish on time or early

Here is how to prepare:

1. **Download and print** the lab and any associated material from the Canvas site and bring your copies to lab (we will not provide extra copies in lab).
2. **Read** the assigned readings before lab.
3. **Complete any pre-lab** material prior to coming to lab. Information from this section may appear on exams and quizzes. Prelabs are due at the beginning of lab.
4. **Read** the entire lab exercise prior to coming to lab. Know what the lab involves and come prepared.

YOU MUST BE AT LAB ON TIME. Labs will begin promptly at their designated times. Some of our labs include field trips. If you miss the van, you will need to get yourself to the field site.

Exams on Lab material: There will be two exams on the lab material. The first will be a field exam on identifying and naming the Familiar 55; the second will be an in-lab exam answering questions about organisms we’ve explored in lab over the semester.

**Case Studies:** We will use three lecture periods to discuss case studies. For each of these case studies, you will have a primary literature paper or other material to read (or some podcast or video to watch), preparation questions to answer before the discussion, and follow-up questions to answer after the discussion.

**Turning in Assignments:** All assignments will be turned in through Canvas (unless stated otherwise). There will be Assignment icons in Canvas that allow you to upload your assignments. This saves paper, allows me to send comments back to you outside of class, prevents lost assignments and time-stamps your submission. Feedback will be done using Track Changes in Word and uploaded directly to Canvas or done directly in Canvas using Speedgrader. You will receive an email when I upload my edits. Assignments should be uploaded to Canvas at the start of lecture or lab as indicated on the individual assignment and lecture schedule. **Please ONLY send a WORD DOCUMENT file and use the file naming format: your last name_assignment (e.g., Johnson_Assignment 1).**

**Late Policy:** Any assignments turned in late will lose 5% a day (including weekends), down to 50%. I cannot accept any written assignments after the start of our final exam. Work turned in late on the same day that it is due will be considered 1 day late (5% off). **TO BE FAIR TO ALL STUDENTS, I MUST STRICTLY ENFORCE THIS LATE POLICY.** I will consider waiving the penalty only in a case of a medical or family emergency. Written documentation of the nature of the emergency may be required. An extra-curricular activity, travel, or work in another course is not a valid reason for late work. If you must miss class for one of these reasons, it is your responsibility to check the lecture schedule and assignment guidelines to determine if anything will be due in your absence. Please check with me if you are unsure.
Course Policies: You are responsible for all material covered in lectures, portions of the text assigned during lectures, and readings listed on the syllabus. In lecture periods, you will be given information that is not in the textbook and (as stated earlier) I don’t post my lecture notes, only the slides used in lecture. Therefore you must attend lectures and take detailed notes if you want to do well in the course. The list of readings from the textbook, Biology: How Life Works, will be in the schedule. I will give ample notice for readings. I will add other reading material that we will discuss directly into Canvas as pdf files. You are responsible for printing, reading, and either bringing them to class or critically evaluating them before coming to class. I would also suggest reading the material again after class to solidify the findings.

Group Work: There will be times over this course where you will work on group assignments and/or utilize data collected while working in groups. Each and every graded assignment based on such effort must be your own work. For the tables or figures, you each must make your own, even if you work together and help each other. Anyone handing in someone else’s work or printing multiple copies of the same work to be handed in separately will be treated as plagiarism (see more below on plagiarism).

Diversity: Lack of respect for diversity will not be tolerated in the class. Diversity encompasses age, life experiences, profession, race, religion, gender, nation, lifestyle, social class, learning style, philosophy of life, sexual orientation, personality, mental and physical challenges, customs, values, among other.

Office of Accessibility and Accommodation: If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Student Accessibility and Accommodations, Howarth 105, pperno@pugetsound.edu, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Student Bereavement Policy: Upon approval from the Dean of Students’ Office, students who experience a death in the family, including parent, grandparent, sibling, or persons living in the same household, are allowed three consecutive weekdays of excused absences, as negotiated with the Dean of Students. For more information, please see the Academic Handbook.

Classroom Emergency Response Guidance

  Please review university emergency preparedness, response procedures and a training video posted at www.pugetsound.edu/emergency/. There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings.

  If building evacuation becomes necessary (e.g. earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative.

  If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this
is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors. Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

**Student Accessibility and Accommodation**

If you have a physical, psychological, medical or learning disability that may impact your coursework, please contact Peggy Perno, Director of Student Accessibility and Accommodation, 105 Howarth, 253.879.3399. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. If you are enabled extra time on an exam, you must give me the form from the Office of Student Accessibility and Accommodations ONE WEEK before any exam (at the start of class is best so I can provide adequate accommodations). Generally, extra time is not given for in-class quizzes but if you absolutely need extra time for the quizzes, please come and talk to me the first week of class.

**Copyright and Fair Use**

Course materials are subject to the copyright law of the United States (Title 17 U.S. Code). They are for educational purposes only and limited to students enrolled in the course. Further reproduction or distribution is prohibited.

**Academic and Scientific Integrity:** Academic honesty is a fundamental principle of intellectual endeavor. Scientific integrity is an integral part of the scientific process. Simply put - cheating sucks. It is selfish, unfair to others, cheats the cheater of learning, and ends up consuming way too much time and emotion. Cheating is a waste of your time and mine. You will learn nothing and I will have to waste my time dealing with it rather than spend time on students who aren’t cheating.

It is your responsibility to make sure that you know and completely understand what constitutes academic dishonesty and plagiarism. It is your responsibility to read and understand the UPS policies on Academic Integrity. If you haven’t already been through the new Academic Integrity tutorial on the library’s website, you should familiarize yourself with it: [http://alacarte.pugetsound.edu/subjectguide/6-Academic-Integrity-Puget-Sound](http://alacarte.pugetsound.edu/subjectguide/6-Academic-Integrity-Puget-Sound).

By becoming a part of the UPS community and taking this course, you are stating that you have read the information on the UPS web page and that you fully understand what constitutes plagiarism and the penalties for academic dishonesty.

Several forms of academic dishonesty are especially relevant to this class:

- Cheating on exams or quizzes
- Alteration, fabrication or misrepresentation of data
- Plagiarism on any assignment including questions and comments and lab exercises. Note that plagiarism includes paraphrasing that uses the original wording or sentence structure. Cite references more than you think you need to!
Even when lab work is performed in groups, you must complete all written work individually unless the assignment specifically states otherwise. To avoid problems, never collaborate with classmates when you are actively writing your labs, papers or other assignments. I encourage you to discuss assignments with your colleagues, but do not take notes during those discussions because that can lead to answers that are suspiciously similar between individuals. If you cheat, I have to report you and sanctions range from losing credit for the assignment plus 100 points to, most commonly, being dismissed from the course with an F. You could also face a misconduct hearing and possible expulsion.

Copyright and Fair Use: Course materials are for educational purposes only and limited to students enrolled in the course. They are protected by copyright law and may not be copied, downloaded, stored, transmitted, shared or changed in any way.

Grading
Final grades will be determined based on the total points accumulated by each student. The maximum number of points possible is shown below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Points</th>
<th>GRADING SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Exams (3) (100 points each)</td>
<td>300</td>
<td>93 – 100 = A</td>
</tr>
<tr>
<td>Quizzes (6) (15 pts each, 1 dropped)</td>
<td>75</td>
<td>90 – 92.9 = A-</td>
</tr>
<tr>
<td>Final exam (50 pts on last unit, 100 pts on entire course)</td>
<td>150</td>
<td>87 – 89.9 = B+</td>
</tr>
<tr>
<td>Labs</td>
<td>300</td>
<td>83 – 86.9 = B</td>
</tr>
<tr>
<td>Lab introduction and methods</td>
<td>30</td>
<td>80 – 82.9 = B-</td>
</tr>
<tr>
<td>Lab results and discussion</td>
<td>40</td>
<td>77 – 79.9 = C+</td>
</tr>
<tr>
<td>Peer review</td>
<td>15</td>
<td>73 – 76.9 = C</td>
</tr>
<tr>
<td>Lab final paper</td>
<td>100</td>
<td>70 – 72.9 = C-</td>
</tr>
<tr>
<td>Lab exams (Field exam 25, Lab exam 75)</td>
<td>100</td>
<td>67 – 69.9 = D+</td>
</tr>
<tr>
<td>Case studies</td>
<td>60</td>
<td>63 – 66.9 = D</td>
</tr>
<tr>
<td>Participation*</td>
<td>20</td>
<td>60 – 62.9 = D-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1190</td>
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*Participation includes showing up for class and lab, participating in class and lab (discussions, asking questions), and in-class assignments (observation, hypothesis, experiment).

Nurture your sense of wonder and awe. Look at the world with a child’s eyes. Let yourself be curious. Play in the dirt, mud and water and keep your senses open.

Optional books: You can find field guides to the plants and animals of this region (both terrestrial and marine). You can never have enough field guides! Some good ones are:
Biology 112
STUDENT CONTRACT
Diversity of Life, Fall 2019

Please sign the contract and return it to your professor by Friday, September 6. Signed contracts are required to receive grades in this course.

I have read the syllabus and understand the content of the syllabus.

- I am aware of quiz, exam, and final exam dates. I understand that no make-up quizzes or exams will be given.
- I am aware of the assignment schedule, and I understand that assignments are due on the date and time stated. I understand that there is a penalty for assignments turned in late.
- I understand that labs are mandatory and that failure to attend lab for something other than a documented medical or family emergency will lead to a lower final course grade.

I have read the University’s policy on violations of academic integrity and the penalties associated with such violations.

- I understand these policies and penalties.

I have read the material about academic integrity and plagiarism contained on the Collin’s Library website as outlined in the syllabus.

- I have taken the Academic Integrity Quiz associated with the Library’s web page on Academic Integrity.
- I understand what constitutes plagiarism.
- I pledge to refrain from any act of academic dishonesty, plagiarism or scientific misconduct.
- I understand that all written work must be completed individually by me unless the assignment specifically states otherwise. I understand that if I violate this policy, penalties will be applied.

NAME (PRINT) ____________________________________________________________

SIGNATURE ____________________________

DATE ______________________________