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- DO NOT SET ASIDE UNTIL YOU UNDERSTAND THE CONCEPT(S) 9

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- WRITE AS MUCH AS YOU CAN; FOCUS ON IDEAS OR CONCEPTS VS. DETAILS OF FACTS 9
- ADD OWN NOTES; WRITE OUTLINE FORM; USE ABBREVIATIONS 9
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**CHALLENGE YOURSELF! SHOW UP AND PUT OUT YOUR BEST EFFORT** 10

# CLASS SYLLABUS

**INSTRUCTOR:** Dr. Paula Braunschweig

**LECTURE HOURS:**

Monday/Wednesday 6:00 – 8:00 PM

PC 317

E-mail: [pbraunschweig@santarosa.edu](mailto:pbraunschweig@santarosa.edu)

**Office Hours:**

Monday 5:30-6:00 PM or by appointment

Wednesday 5:30-6:00 PM or by appointment

**TEXTBOOK:**

H<sub>2</sub>O = Life: Water in Biological Systems. D. Cadman & R. Fautley 2009, Santa Rosa Jr. Coll.

(reading materials provided in class)

**STUDENT LEARNING OUTCOMES:**

1. Demonstrate college skills including organizing classroom materials and applying active learning techniques.
2. Identify the steps in the scientific method and develop a hypothesis statement.
3. Define the levels of biological organization and explain the importance of each in maintaining life.

**GRADING:**

- Quizzes (8\*30pt) 240
- Exams (Midterm 70pt, Final 160pt)230

Grades will be calculated as follows:

<b>100 - 90%</b>	<b>A</b>
<b>89 - 80%</b>	<b>B</b>
<b>79 - 70%</b>	<b>C</b>
<b>69 - 55%</b>	<b>D</b>
<b>54 - 0 %</b>	<b>F</b>

**Assignments 240**

- \*Keep an organized notebook in a 3-ring binder.
- \*Read, annotate, and answer questions in reading material.
- \*Complete worksheet or other assignments.
- \*Prepare for weekly quizzes by taking online practice quizzes.
- \*Read and summarize water-related news articles.

1. Water Articles (6*5pt)	30
2. Notebook (5, 5, 5, 20, 20pt)	55
3. Investigations	30
4. Participation	25
5. Attendance	<u>100</u>
	950

**ATTENDANCE: Required.** Missing class, tardiness, taking repeated lecture breaks, or leaving class early will affect your attendance grade. Do not schedule appointments during class time. Call if you cannot attend due to illness or other emergency. Repeated occurrences will result in your being dropped (excessive absence is defined as greater than 10% of the class meetings).

**NOTE!** Anyone missing the **FINAL EXAM** (for any reason) will fail regardless of previous scores.

**DATES TO NOTE:** Since this is a late start course, it does not follow the schedule of classes regarding deadline dates.

<b>Date Class Begins:</b>	2/6/2017	<b>Date Class Ends:</b>	5/17/2017
<b>Last Day Add w/o add code:</b>	2/20/2017	<b>Last Day Add with add code:</b>	3/1/2017
<b>Last Day Drop for Refund:</b>	2/22/2017	<b>Last Day for P/NP option:</b>	3/8/2017
<b>Last Day Drop w/o W:</b>	3/1/2017	<b>Last Day Drop with W:</b>	4/25/2017
<b>FIRST CENSUS DATE:</b>	3/1/2017	<b>Date Final Exam:</b>	5/17/2017

MONDAY TOPICS	ASSIGNMENTS	WEDNESDAY TOPICS	ASSIGNMENTS
<u>February 6</u> Introduction Note Taking / Study Skills	CH #1	<u>February 8</u> Biological Organization Deductive reasoning	
<u>February 13</u> Atoms & molecules	CH #2	<u>February 15</u> Sci. Method & hypothesis <b>Quiz 1</b>	CH #3
<u>February 20</u> <b>Investigation 1: M&amp;M-ology</b>	CH #4 INV #1	<u>February 22</u> Water & macromolecules <b>Quiz 2</b>	CH #5
<u>February 27</u> <b>Investigation 2: Properties of water</b> Drinking water	INV #2 CH #6	<u>March 1</u> Membranes & transport California Water Facts <b>Quiz 3</b>	CH #7 CH #9
<u>March 6</u> <b>Investigation 3: Osmosis Diffusion</b> How Does it Taste?	INV #3 CH #8	<u>March 8</u> Cells & organelles <b>Quiz 4</b> (bring A11 to quiz)	CH #10
<u>March 13</u> Animal gas exchange & circulation Test taking	CH #11 CH #12	<u>March 15</u> <b>Quiz 5</b> <b>Midterm Exam</b>	
<u>March 20</u> <b>Spring Break</b>		<u>March 22</u> <b>Spring Break</b>	
<u>March 27</u> <b>No Class</b>		<u>March 29</u> Water relations in microbes <b>Investigation 4: Pondwater life</b>	CH #13, 14

<u>April 3</u> Water relations in plants CH #15	<u>April 5</u> Human Populations <i>Video: Human Population Growth</i> <b>Quiz 6</b> CH #16
<u>April 10</u> Water and Carbon Cycles CH #17	<u>April 12</u> Nitrogen, Sulfur & Phosphorus <i>Investigation 5: Incredible Journey</i> CH #18
<u>April 17</u> Watersheds & Wetlands (Marshes, Vernal Pools, Rivers) <b>Quiz 7</b> CH #19	<u>April 19</u> <b>Field Trip</b> <i>6:00-8:00pm meet on site</i> CH #21
<u>April 24</u> Wetlands (ponds & lakes, estuaries) <b>Quiz 8</b> CH #20	<u>April 26</u> Changes in Watersheds San Francisco Bay (Finish 5/5) CH #22 CH #23
<u>May 1</u> Water Resources of the West <b>Quiz 9</b> CH #24	<u>May 3</u> Water Resources of the West <i>Video: "Cadillac Desert: The Last Oasis"</i>
<u>May 8</u> Water Pollution <b>Quiz 10</b> CH #25	<u>May 10</u> Water Use <i>Investigation 6: "No-Know"</i> INV#6

**Final Exam: Tuesday, May 17**

**6:00-8:00PM**

## Assignment Calendar – Due Dates

MONDAY <u>February 6</u>	WEDNESDAY <u>February 8</u>
<u>February 16</u> A2 3-Things to do to Improve Study Skills	<b>February 18- Quiz 1/Notebook Check</b> A3 Study Skills A4 Mellinarks & Set A5 Biological Organization
<u>February 23</u>	<b>February 25- Quiz 2</b> A6 Atoms and Molecules A7 Scientific Method Inv1 M&M-ology
<u>March 1</u>	<b>March 3- Quiz 3</b> A8 Water A9 Macromolecules Inv2 Water Properties
<u>March 8</u> <i>WA1: Small, but Mighty: The Molecule Called Water</i>	<b>March 10- Quiz 4</b> A10 Membranes & Transport A11 California Water Facts (bring to quiz) Inv3 Osmosis Questions and Graph
<u>March 15</u>	<b>March 17– Midterm and Quiz 5</b> A12 Cells A13 Cell Diagram A14 Animal Gas Exchange & Circulation <u>Notebooks Due</u>
<u>March 22</u> <b>Spring Break</b>	<u>March 24</u> <b>Spring Break</b>
<u>March 29</u> <b>No Class</b>	<u>March 31</u> <i>WA2: Dismal Salmon Run</i>
<u>April 5</u> <i>A15 Microbes and Inv4 Pondwater</i>	<u>April 7</u> <i>WA3: 4 things to end CA drought</i>
<u>April 12 - Quiz 6</u> A16 Plants A17 Population Growth	<u>April 14</u> <i>WA4: Invasive Weed</i>
<u>April 19 – Quiz 7</u> A18 Water Cycle A19 Nutrient Cycle Inv5 Incredible Journey	<u>April 21</u>
<u>April 26 – Quiz 8</u> A20 Watersheds & Wetlands A21 Sewage Treatment Questions	<u>April 28</u> <i>WA5: Traces of Cosmetics</i>
<u>May 3– Quiz 9</u> A22 Lake Ecology A23 Changes in Watersheds	<u>May 5</u> <i>WA6: Ocean Interrupted</i>
<u>May 10 – Quiz 10</u> A24 San Francisco Bay A25 Cadillac Desert	<u>May 12</u>

**May 17 – Final Exam** 6:00-8:00 PM – *Notebooks Due*

**GRADING:**

**EXAM MAKE-UP POLICY:** There are **NO** make-ups, however *with advanced permission* (you must telephone/email prior to class) you may arrange to take an exam or quiz in advance (adequate notice must be given) or before the next class meeting if arranged before the quiz.

**ASSIGNMENT MAKE-UP POLICY:** students who miss class and have informed the instructor per the attendance policy may turn in an assignment late without penalty the day that they return to class (note all assignments are available on the class website, therefore you can use your reading material to complete an assignment without having attended class). All other late work must be turned in no more than one class period late and will receive a 10% penalty.

**GUIDELINES FOR SUCCESS:**

1. Read assigned pages before you come to class, this really helps in keeping up with the topic.
2. Attend every class and stay through the end. Plan work or appointments for other times.
3. Be alert and plan to participate; take good notes.  
Review your notes after class and make extra notes from your reading.  
Reviewing your notes the same day you took them greatly enhances understanding and retention.
4. Take charge of your learning. Study for understanding of concepts, not just to memorize facts.
5. Do not hurry through assignments. Thoughtfully answer assignment questions; and be able to use new terms. Put time and thought into your work. **If you say you know something, but cannot explain it, then you do not know it.** Knowing is not the same as understanding someone else!
6. Correct your assignments. If you have questions about grading ask. Keep your corrected quizzes to help you prepare for the cumulative portion of the midterm and final.
7. Be organized! Read e-mail announcements you receive. Refer to your calendar of assignments often.
8. Complete the weekly online practice quizzes.
9. Consider studying with other students outside of class to discuss the material & study for exams.
10. ***Above all, determine to do your very best in this class!***

**PARTICIPATION AND EFFORT:**

Ultimately your success in school (or a job) will result from your willingness to be actively engaged in whatever you are trying to accomplish. Approximately 18% of your grade will be based on the notebook you keep, participation, your attendance and staying until the end of class. Participation includes: attentiveness, participation in lecture, and group investigations.

**If you are having problems keeping up with class please come to see me before you get too far behind!**

**CODE OF CONDUCT:** Students will come to class prepared to learn and participate. Arriving or leaving after class has started is disruptive. Students who disrupt the learning of others may be asked to leave the classroom and may be disciplined. Students caught cheating, plagiarizing, falsifying attendance records, or violating testing procedures will be penalized points and may not receive credit for their assignment and/or they may receive disciplinary action that could result in expulsion. Anyone who assists someone else in violating the conduct code will also be penalized. Although you can discuss class assignments, what you turn in must be entirely your own work! Please refer to Policy 3.11 in the SRJC catalog on Academic Integrity for further explanation at: <http://www.santarosa.edu/polman/3acadpro/3.11P.pdf>.

**CELL PHONES & IPODS &:** must be silenced during class!

**Students must NOT leave class for a call!** Students who forget to turn off phones, text, or take calls will be docked 5 participation pts.

**SPECIAL CONSIDERATIONS:** Working in a hands-on environment, challenges sometimes occur that do not come up lecture classrooms. If you have any special needs please do not hesitate to let me know.

**STUDENT SUPPORT SERVICES:**

SRJC offers many excellent student support services that may be helpful to you.

**Student Health Services** (707) 527-4445 (Race Building, Room 4017)

Includes both medical and psychological services. Student Psychological Services offers free counseling.

**Academic Services include:**

Tutorial Services (free): Tutorial Center – (707) 521-6903 (Doyle Library, Room 4251);

MESA – (707) 521-7909 (Bertolini Student Services Center, room 4832)

Writing Center – 527-4351 (1629 Emeritus Hall) (this service is very helpful for news summaries)

College Skills Lab – 527-4834 (Analy Village, Room 601)

Adult Reentry Services – 527-4375 (Bertolini Student Center, 2nd floor)

**Disability Resources** – (707) 527- 4278 (Analy Village, Building C, Room 637, Santa Rosa)

**ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:** If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, use of service animal, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to me as soon as possible. You may also speak with me privately during office hours about your accommodations. If you have not received authorization from DRD, it is recommended that you contact them directly. Petaluma Campus also has a DRD in Petaluma Village.

**EMERGENCY EVACUATION PLAN:** In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. Our class will meet on the lawn between Baker Hall and Bailey Hall (next to the reserve parking lot) to make sure everyone got out of the building safely and to receive further instructions. If you are a student with a disability who may need assistance in an evacuation, please see me during my office hours as soon as possible so we can discuss an evacuation plan. **To report an emergency on campus CALL CAMPUS POLICE AT 527-1000. Do not call 911.**

**ONLINE CLASS RESOURCES:** you will use your Student ID number and password to access online materials for class. This will allow you to take online practice quizzes and access assignment handouts, as well as other learning resources. Use your “Cubby” to make sure you have a current e-mail address that you use on file with Admissions and Records, if not, you must correct it for this class.

To get started go to the class homepage (address on 1<sup>st</sup> page); at the top of the homepage you will find tabs that direct you to various resources (Quizzes, Table of Contents, Read, and Links). You should take a little time to become familiar with these valuable tools. You will find:

- Weekly Practice Quizzes – use practice quizzes to prepare for your weekly quizzes.
- Assignments copies – if you missed an assignment you can access copies on the web using this link.
- Video and other Links – Use the links provided to enhance your learning experience.
- Instructor e-mail announcements – if miss an e-mail that your teacher sent, then you may access it by going to the “read” tab.

Keep an organized notebook in a 3-ring binder.

2. Read, annotate, and answer questions in reading material.
3. Complete worksheet or other assignments.



4. Prepare for weekly quizzes by taking online practice quizzes.
5. Read and summarize water-related news articles.

### **BIOLOGY 100: WATER AND STUDY SKILLS NOTES**

#### **WHY FOCUS ON WATER?**

- **Earth** – water planet; special properties allows life to exist  
75% of earth's surface is water; 97% salt  
3% fresh water: Polar ice caps, deep inside earth  
Available freshwater small fraction (0.003%)
- Cells: Human body 70% water; Plant cell 70-90% water
- Chemical reactions: Water moves dissolved substances; Involved in chemical reactions
- Connects ecosystems: Water cycle; Gravel mines affect salmon fishing yield
- Recycled over and over: Limited resource; Pollution

#### **STUDY SKILLS**

##### **Active vs. Passive Learning**

- Need for practice
- Come to class prepared to learn
- Before class complete reading and other assignments
- Bring 3-ring, notebook and pencil or pen (allows you to insert handouts and quizzes)

##### **In Class – sit forward / appear interested: be alert; ask questions**

- Try to figure out purpose of assignment or lecture  
identify important topics; how could an exam question be written?

##### **After Class – think about what you are learning!**

- Try to recall what you learned: while driving home, cooking, bathing, etc.

##### **Review your notes – Study: same day is most effective.**

##### **Talk about it – explain difficult concepts; tell yourself about it out loud; vocabulary practice**

- **Study Groups:** form study group with other active learners
- **Answer questions in class**

##### **Study Efficiency Hill - Study Triangle**

##### **The day you learned the material it will be freshest in your mind.**

- Fill in any detail you skipped; make corrections
- Check reading to understand unclear concepts; if a concept is unclear:  
→ jot down a question → try to guess an answer (write down)  
→ reread notes, think about question → read section in textbook or reading material  
fill in gaps in your notes → discuss with a classmate → go on to something else  
subconscious will continue to work on it → ask yourself question before bed  
→ ask again in the morning → if no answer ask teacher
- DO NOT set aside until you understand the concept(s)

##### **Notetaking – most valuable study resource**

- Write as much as you can; focus on ideas or concepts vs. details of facts
- Add own notes; write outline form; use abbreviations
- Underline key words; add details / clarification
- Cornell Notes: 1/3 Left side: key words/phrases; 2/3, Right side: notes; Below: quest/ summary

##### **Other Valuable Techniques**

- Flash Cards → focus on what you don't know
- Complete assignments
- Take Online Practice Quizzes; Correct Quizzes

##### **Use Your Time Wisely!**

- Study in distraction free place; study when you are alert; take active breaks
- Attend class and take good notes

**CHALLENGE YOURSELF!** Show up and put out your best effort