Welcome to Bio 2. This course is an advanced science course designed for motivated students who have a desire to pursue biology in greater depth. This course provides the student with a broad overview of biology with respect to humans. It is designed to explore human biology as a process, evolution, energy transfer, continuity and change, the relationship of structure to function, regulation, interdependence in nature, and the unified understanding of the human biology as it pertains to science, technology, and society. The expectations of this course may be greater than those of your previous science classes. This is a college prep course and/or designed to receive college credit in high school.

Length of Course: 38 weeks Recommended Grade Level: 10, 11 or 12 Prerequisite: Biology Course Credit: 3 credits - UWGB (student meets grade level criteria, 11-12) 1 credit - Verona Area High School

Text will be provided by the school and may be purchased (See instructor for details.)


Lectures include an overview of information for which students are responsible, plus additional information on difficult concepts or those not covered extensively in the textbook. Investigative labs, discussion, and demonstrations relating to class topics are also part of the curriculum. Students will develop skills in observation and objective analysis; scientific inquiry; data collection; statistical analysis; and oral and written communications.

Exams cover information from the lecture, investigative labs, demonstrations, and discussions along with information from assigned reading, and assigned terminology. Exams include multiple choice questions, true-false questions, matching questions, short answer, and critical thinking questions.

Lab assessments may include both oral and written lab reports to evaluate student success in attaining the objectives of this course. Generally, lab reports are due the following Tuesday after the start of a lab. Quality of Laboratory write-ups include organization & presentation as well as experimental design and discussion of phenomena investigated. ALL labs will be recorded in a sewn spine lab notebook.
Human Biology Programmatic Outcomes
1. Demonstrate a basic knowledge of molecular / biochemical processes.
2. Demonstrate a basic knowledge of cell structure, organelles and cellular processes.
3. Demonstrate a basic knowledge of the anatomy and physiology of human organs and organ systems.
4. Demonstrate an understanding of the impact of evolutionary forces on the human organism.
5. Demonstrate an understanding of the ecological context of humans.
6. Demonstrate an understanding of the impact of nutrients on human physiology.
7. Demonstrate an understanding of the interactions of exercise and human physiology.
8. Demonstrate an understanding of scientific processes, including inductive and deductive reasoning, formulation of hypotheses and experimental design.
9. Demonstrate an understanding of research methodologies and the relative value of information obtained from experiments involving observation, correlation and examination of cause/effect relationships.
10. Know and execute state-of-the-art laboratory techniques.
11. Analyze and interpret scientific information.
12. Demonstrate an appreciation for the ethical and social dimensions of science, as well as weaknesses/limitations and assumptions of science as practiced in the US.
13. Demonstrate the awareness, understanding and skills necessary to work in a diverse world.

We will follow the Verona Area High School Grading scale. Grading Scale UWGB Equivalent Grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>UWGB Grade Scale</th>
<th>A (Excellent)</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>100-94%</td>
<td>AB (Very Good)</td>
<td>B (Good)</td>
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<tr>
<td>A-</td>
<td>93-90</td>
<td>B (Good)</td>
<td></td>
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<tr>
<td>B+</td>
<td>90-87</td>
<td>B (Good)</td>
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<tr>
<td>B</td>
<td>87-83</td>
<td>BC (Above Average)</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>83-80</td>
<td>C (Average)</td>
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<tr>
<td>C+</td>
<td>80-77</td>
<td>CD (Below Average)</td>
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<tr>
<td>C</td>
<td>77-73</td>
<td>D (Poor)</td>
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<tr>
<td>C-</td>
<td>73-70</td>
<td>F (Unacceptable)</td>
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<tr>
<td>D+</td>
<td>70-67</td>
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<td>D</td>
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<td>F</td>
<td>&lt;60</td>
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Grading: Based on approximately 400 points per Quarter

**SEMESTER 1**
- Exams 40 %
- Lab 40 %
- Discussion and Quizzes 10%
- Daily assignments, Initiative and Safety 10%
- Semester Exam 1 14% of SEM 1 Overall grade
- Monthly Assignment EXCR option +1% Q2

**SEMESTER 2**
- Exams 40 % (Includes the Cat Dissection Lab Practical Exam)
- Lab 40 % (Includes the Cat Dissection)
- Discussion and Quizzes 10%
- Daily assignments, Initiative and Safety 10%
- Semester Exam 2 14% of SEM 2 Overall grade
- Monthly Assignment EXCR option +1% Q4
Required Materials

- Pen or pencil
- Composition notebook
- Loose leaf paper or Bio 2 notebook or binder
- Bio 2 book, *Human Biology*

Requirements

1. Be prepared for class. Have materials needed for class out of backpacks/bags before class starts. Backpacks/bags are not allowed in the science classroom or science laboratories due to safety, theft, and space needs. Use your locker to store extra materials not needed for class. Or place backpacks on the assigned tables within the room.

2. You must practice safe lab procedures. Unsafe lab practices can cause injury to yourself and others, or damage to lab materials. Unsafe practices, or failure to follow guidelines will result in dismissal from the lab—no credit will be given for the lab/lab report and a discussion will be required with the instructor before reentry to lab. You must sign a safety contract before participating in any laboratory activities.

3. Be timely in your assignment completion which includes reading. Find a lab partner that you will be able to work with and who will be willing to explain classroom activities/agenda if you happen to be absent. Please note that email is not an effective mode of conversation for me--I would rather talk with you face-to-face.

4. Exams will be announced in writing and verbally days (usually weeks) before the Exam day (see the calendar.) If you are absent the day before the Exam you are expected to take the Exam on the scheduled day. If you are present the day of an Exam, you are expected to take the Exam. If you can not be available for an Exam, you must contact me in advance to work out a suitable alternative date. Please contact me as soon as possible if a situation comes up that prohibits you from taking the exam as scheduled. Refrain from talking to me about your situation at the start of the class period as I am administering the exam—be proactive in your learning and communicate with me prior to the exam period.

Expectations

1. Respect yourself and others.
2. Be in your seat when the bell rings with materials you will need for class.
3. Electronic media is not allowed in our classroom unless given teacher permission.
4. No eating or drinking in the classroom or laboratory facilities.
5. Extra credit is rarely an option but it is available.
6. Active Participation is encouraged.
7. Full Participation of the Cat Dissection, Quarter 4.
CELL PHONE POLICY: NO PHONES. _____student initial
Mobile cellular devices are not allowed (students should power off and stow in backpack) in classroom space(s) during our scheduled time together (iPads are welcome.) Parents: Please refrain from messaging/calling your child during class time.

This study Apr 03, 2017 looks at how the mere presence of cellphones, regardless of whether they are mute or turned off, impacts cognitive function, which they measured through working memory (affects one's ability to engage in immediate processing) and fluid intelligence (one's ability to reason, think abstractly, problem-solve, and identify patterns and relationships). As I've told my students already, every skill listed under fluid intelligence is a requirement to fully engage in science. It's a lengthy article [https://www.journals.uchicago.edu/doi/full/10.1086/691462](https://www.journals.uchicago.edu/doi/full/10.1086/691462) but the researchers concluded the following:

1. The visible presence of a cellphone, regardless of it's notification or power status, had a significant negative impact on cognitive function.
2. Moving the phone out of sight (back pocket or backpack) showed only mild improvements.
3. Significant improvement was demonstrated only when the phone was physically removed FROM THE ROOM!

Scholarly Integrity  _______student initial
It is expected that the work students do will be their own, whether on tests, homework, lab reports, etc. When students collaborate in groups, they are expected to discuss ideas and help each other to clarify their understanding of the concepts. Students may collect data together on labs, but all written answers should be the original thoughts of the student that reflect his/her individual understanding and knowledge. Copying someone else's work is called cheating and is not allowed. Any instances of cheating will result in an immediate grade of zero (0) for that assignment work. Discussion will follow and appropriate measures will be taken.

I look forward to working with you in Biology 2.
Aloha~ Mrs Mikkelson