



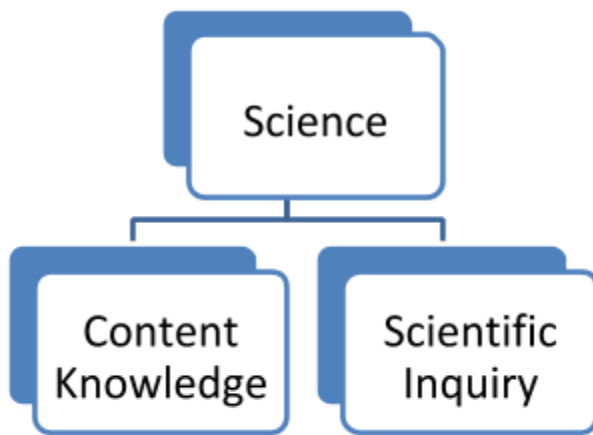
Welcome to Advanced Biology!

Advanced Biology—What this course is about?

As you know, biology is the scientific study of life. That means you'll spend this course thinking about living things like animals, plants, fungi, protists, and bacteria.

You'll expand on what

you learned in biology about how living things are put together, how their parts work, how they reproduce (a topic of perennial interest), how they interact, and how they change over time. As with any good science class, what you'll learn breaks down into two basic parts—content knowledge and scientific inquiry.



Content knowledge is the part where we learn about the cool things that great scientists of yore have discovered—like what your spleen does and how photosynthesis works. (BTW: What does the spleen do?)

Scientific inquiry is the set of things that scientists do to figure out all that cool stuff in the first place—designing good experiments, making models, and treating new ideas with an open mind (but not so open that your brain falls out).

But that's not all this course is about.

If you left this course with nothing more than a bunch of biological knowledge, I wouldn't be doing my job. That's because in addition to learning biology, this class is also an opportunity for you to get better at **learning how to learn**. At some point, your taxpayer funded education will come to an end, and you will find that you are stuck in the position of either 1. having to pay someone lots and lots of money so that they will teach you something new (i.e. college) or 2. trying to learn new stuff with nothing but your own brain and whatever someone has posted on YouTube. While that may not seem so bad, think about this.

What if I came in next Monday and handed you a list of everything you needed to learn by the end of the week? I'd give you a regular test (with challenging multiple choice and essay questions) and I'd score it just like always, but I would leave all the learning up to you—no lecture, no lab reports, no activities. You could use the class time however you liked. But you'd get no help from me. Would you be ready? Would you have the skills to learn on your own? Would you have the organization and self-discipline?

Don't worry. I'm not going to do this, but as your education progresses, you will find yourself in situations that are more and more like this—more and more self-directed. If you leave this class with skills that allow you to take a text or a lab or a lecture or a writing assignment and **claim your own learning from them**, then you've gotten something just as valuable as the science knowledge itself. This is what our **core value of responsibility** is all about.

Relevance—Why is this important?

This is the part of the syllabus where I am supposed to tell you that: 1. Your life will be better for learning biology and 2. Everybody's doing it, but only the first part is actually true.

You have chosen to take this course because you already have a sense of how biology *is* relevant to your life.

Of course, no one could give you a pat answer for how you might use each and every tidbit of biological information in your career. We live in a changing world. The future is uncertain.

Nobody knows what knowledge you'll need in your future.

But it's worth remembering reiterating the value of what you're learning here:

1. **Opportunity:** It is getting harder and harder to make a comfortable living in our country (or any country) without having a set of useful skills, and skills in science, technology, and math are about as in-demand as you can get. If you want an interesting job that pays well, this is the place to be. (And even if you know that you want to pursue a career in something totally unrelated to science, chances are that science will pop up there in ways you might not expect.) But in order to access those opportunities, you've got to have science under your belt.
2. **The Greater Good:** Your science education isn't just about you. Our planet is facing unprecedented challenges. Many of the biggest problems in the world (hunger, epidemic diseases, global warming, and extinction) are scientific problems. We need smart, hard-working, innovative people to care about solving them—people who understand science really, *really* well. We need you.
3. **Sheer Awesomeness:** If you are open to it, the things that we learn in this class can make you see yourself and the world around you in whole new ways. Life on Earth is beautiful and revolting, fragile and resilient, elegant and messy, and utterly, utterly complex. If our studies don't make you sit back and go, "Whoa!" at some point, then I'd be surprised. Sure, some people prefer not to be overwhelmed by feelings of awe and wonder. Some people don't like thinking about where they have come from. Some people want to work for 80 hours a week and devote all of their free time to playing Call of Duty. For the rest of us, there's biology.

What we actually do in advanced biology.

- **Reading**—You will use your textbook **a lot**, both in school and at home. Why? "Reading is *the* skill. If you can read well, you can essentially do anything."¹ Making sense of what you read will involve taking good notes, asking good questions, and collaborating with your classmates.
- **Writing**—Why? Because writing = thinking.
- **Labs**—You are welcome to revise lab reports after you've received my feedback. I'll use the science department's lab rubric to score these.
- **Homework**—Plan for about 45 minutes to 1 hour of homework from this class every night. I promise that it will not be busy work. It will be worthwhile.
- **Quizzes**—Quizzes are short, low-stakes assignments. Their purpose is to give both you and me a sense of what you know, what you don't, and how to proceed. Some quizzes

¹ Lemov, Doug. *Teach Like a Champion*. San Francisco: Jossey-Bass, 2010.

will be unannounced, but you can count on having at least one quiz at the end of each class (called a ticket-to-leave or TTL). I will also be experimenting with the iClicker student response system this semester.

- Correction Credit—These assignments give you a chance to retry things you've missed on quizzes and make use of the feedback that you've gotten. Through correction credit, you will have unlimited chances to improve quiz score.
- Various Projects—These get their own rubrics.
- Tests—Tests are higher-stakes assignments. There will be no surprises on my tests. By the time you get to them, you will have a clear idea of what concepts and skills you need, you'll have practiced those concepts and skills, and you'll have gotten feedback from me. Tests may be cumulative. This means that each test may contain questions about topics from the whole semester up to that point and not just questions from the most recent unit. Tests may be given electronically and will include both multiple choice and essay questions.
- Research Projects—Think of theses as mini-capstone papers. You will study a biology topic in depth, write a paper, and (sometimes) give a presentation to the class.
- Practice—Loads of practice. We'll practice old stuff and new stuff. The point is not that you remember the wonders of biology for the final exam. The point is that you remember throughout what I hope is a long and eventful life.

This is a fast-paced course. It is brimming with content. You will learn at least 250 new vocabulary words. You will need to work hard. But I also hope that you find this class full of “energy, enthusiasm, fun, and humor—not as the antidote to hard work but because those are some of the ways that hard work gets done.”²

Course Materials: What you need to succeed each day...

- **Completed homework**
- **Textbook.** (Starr & Taggart) Keep it well covered at all times. Please note that you are responsible for its condition; if it's lost or damaged you'll be billed \$110.
- **A binder** (with tabbed sections for handouts, labs, tests and quizzes, other assignments, and notes) Organization is key!
- **Pens and/or pencils** Have at least a dozen so that you are never without one.

What you DON'T need . . .

- **Cell phones and music players are to be turned off and kept out of sight** unless I give you specific permission to use them. Otherwise I **will** take them if I see or hear them.
- **No food or drink are allowed in room 233.**

² Ibid.

Grades

Quarter Grades

- **50%--tests** These assess content knowledge.
- **30%--lab work** These assess inquiry and scientific thinking. Projects that don't fit in other categories will also go here. I'll provide **rubrics** explaining how larger assignments will be graded.
- **20%--quizzes** These assess content knowledge in a low-stakes, learn-from-your-mistakes way.
- **0%--habits of work** This category assesses your learning habits, your grit and determination, your leadership, and cooperation with classmates. This is where participation grades and work completion scores are assigned. As important as all of this is, it will NOT be included in your final grade.

Overall Semester Grades

- **42.5%--quarter 3 grade**
- **42.5%--quarter 4 grade**
- **15%--a comprehensive final exam.**

You and your family should check the online PowerSchool gradebook weekly. (Mondays are best.) This is designed to be a more challenging course than other science classes—both in terms of work load and cognitive load. Stay organized. Plan your time. Come for help early and often.

Retakes Policy

1. At least one retake is available on all unit exams.
2. Who:
 - a. Any student may retake a unit exam once, if he or she completes the process described below.
 - b. Additional retakes are at the teacher's discretion.
3. Process:
 - a. Assignment Completion: All assignments associated with the unit must be complete and turned in.
 - b. Test Corrections: Students must identify the following in writing for all missed questions:
 - i. This question was about....
 - ii. My answer is incorrect because....
 - iii. The correct answer is correct because....
 - c. Scheduling Retakes: Students must schedule retakes during ACE or teachers' office hours within 2 weeks (or before the end of a grading period).
4. Score: The score for the retake will be entered as the unit assessment grade.

Community And Respect

I have this crazy dream. In it, I am not able to get to class until 20 minutes after the bell. I am anxious about the time we've lost, but as I come around the corner I see that the class had

gotten started on their first assignment, finished it, and is now beginning to work its way down the agenda.

I love this dream. I love the idea that a class would have internalized our core values of respect, responsibility, relevance, and community so deeply that they take their education into their own hands. We all know that showing up prepared and on time, staying focused, and avoiding hurting others are the responsible things to do. I'll make my expectations around these very clear. But these are only the starting place. Our goal is to become a community where respect, responsibility, and relevance are taken to the next level.

I'll give more guidance on this in the *Room 233 Survival Guide*, but here are a few of the basics.

- **Attendance**--Success in this course requires consistent attendance. Classroom instruction, lab activities, and guided practice provide the foundation for learning during subsequent days, weeks and months. Numerous absences from class (even school sanctioned ones) will affect your ability to understand concepts and stay current on course work. While ACE period can be used for some assignments, you will need to devote time after school to make up labs or other more complex assignments. **Missed labs cannot be made up during ACE.**
We follow the BUHS attendance policy. You can find it in your Student Handbook (pages 6-9), along with the disciplinary actions taken if not followed (pages 24–26). Keep in mind:
 - Being late leads to detentions.
 - A class cut leads to a zero for the day (even if it's a test!) and a detention.
 - Beyond 10 absences you can't get higher than a grade of 60 for the course.
- **Timeliness**—Class begins at the bell. By the time the bell rings you must already be at your seat, on your mark, and working silently on your Do Now assignment. Class ends at my signal. Occasionally, this may be a few seconds after the bell rings. Please do not pack us early.
- **Electronics**—Cell phones and other electronics (including ear buds) must be turned off and completely out of sight for the duration of class. Devices that are NOT out of sight will be confiscated. No warnings will be given.
- **Leaving Class**—You need to **sign out and take a pass** if you're going to leave the classroom for any reason.
- Every human being deserves respect – even if they are very different from you. I expect you to **speak kindly, work together, and keep other's interests in mind.**

Lab Work and Safety

- Prior to each lab we'll review all specific safety issues.
- **Any horseplay, misuse of equipment, or unauthorized lab activity will be severely dealt with.** Penalties range from a loss of lab privilege for the day (meaning a 'zero' for that lab) to possible removal from the course.
- There are risks associated with labs that involve living and once living creatures including the risk of infection. It is your responsibility to adhere to habits of good lab hygiene to protect yourself.
- **You may be charged replacement cost for any broken or damaged equipment or property** if caused by a lack of responsibility on your behalf.

- **Each student group is responsible for working together to clean up their lab station.** Neglect in this area leads to lower grades, detentions, and/or loss of lab privilege.
- While you will be working with partners in the lab, **each student is responsible for recording their own copy of the team's lab data, answering all questions in their own words, and for completing their own lab reports.** This is essential to make sure that you 'get' the lab!

Academic honesty

- Anything you give me with the expectation of receiving credit must be in your own words and reflect your own thinking. Whether it's homework, labwork, a quiz, a project, or a test, **any plagiarized or duplicated work will be marked 'zero' with no opportunity to resubmit. Your family will be contacted. If ever in doubt, please ask me ahead of time. Thank you.**

Makeup Policy and Late Work

- If you are absent, **making up what you missed is your responsibility.**
- Check the class calendar for missed assignments, check "the crate" for any missed handouts, and check with your classmates for missed notes. Then schedule a time with me to make up any missed lab work, tests, or quizzes. **Otherwise they become 'zeros'.**
- **Assignments due on a day you are absent are due as soon as you return** (example: if you're absent Monday and something was due, put it in the inbox as soon as you return on Tuesday).
- **You have until the second school day following your return to make up any new assignments** (for example: if you're absent Monday and return on Tuesday, get the assignment from Monday and hand it in by Thursday).
- **Make-up times:** before/after school (see below), study halls or lunches (see me for a pass).
- If you have an extended absence, see me and we'll come up with a plan to get you caught up.
- **Late work *not* due to absence will be marked down 10% each day.**

Questions? Concerns? Need extra help? Talk to me!

- **Don't hesitate to see me. That's why I'm here. Talk to me early and often.**
- My **office hours are Monday, Wednesday, and Friday after school** from 3:30 – 4:05pm.
- **If you or your parents/guardians ever need to reach me for any reason, my school phone number is (802) 451-3753 and my email address is blord@wsesu.org**

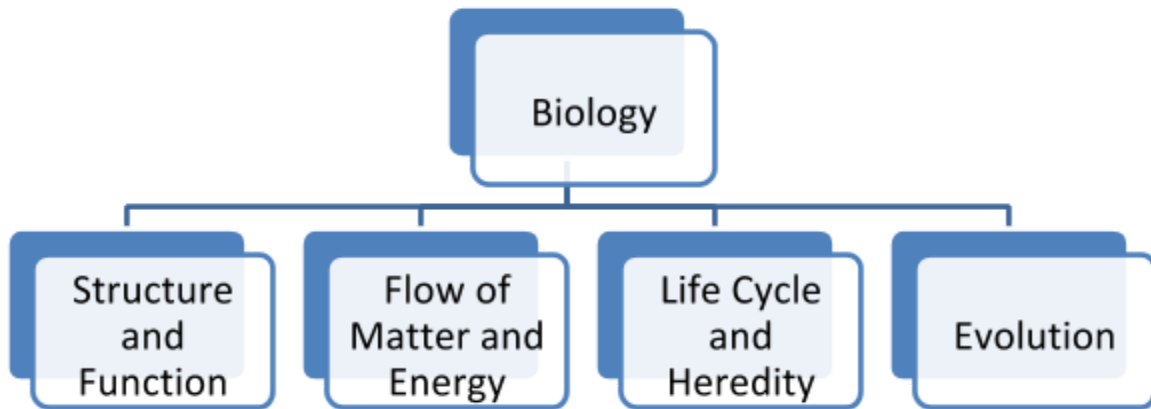
Success in Advanced Biology

You will do well, and you will have a good time in advanced biology if you put your heart and mind into it. Be in class. Be involved. Ask questions. Listen. Cooperate. Do your homework. Identify your strengths, and use them wisely. Improve on your weaknesses. See me for help. Take the initiative. And you will be successful.

I'm looking forward to a great semester with you!

-Mr. Lord

BIOLOGY



Everything that we will study in this course could fit into four categories. You could think of them as four lenses through which to look at any living thing.

- **Structure and Function**—This is a look at how living things are put together (their structure) and how their parts work (function).
- **Flow of Matter and Energy**—This is a look at how living things get what they need from the environment and get rid of what they don't.
- **Life Cycle and Heredity**—Living things pass on traits to their offspring. (Lizards don't have kittens, for example.) This is a look at how that process occurs.
- **Evolution**—Living things change over generations. This is a look at how.

We'll look at each of these themes at different levels.

That said, the goals and objectives of this advanced seminar course are intended to be more flexible than those in other courses and will be responsive to the needs and desires of the group.

Advanced Biology – Mr. Lord
Syllabus signature and parental contact info sheet
****please cut off bottom, sign, and return****

Hello parents and guardians!

Your child is in my advanced biology class this semester. You're helping them get off to a good start by completing their first homework assignment right now. (Thanks!) I wanted to make sure that you got a chance to read the course policies, and in particular saw my contact information:

802-451-3753

BUHS room 233

e-mail: blord@wsesu.org

[Webpage: lordscience.weebly.com](http://lordscience.weebly.com)

******Check out the advanced biology class calendar on my website. ******

- It says what we're doing in class each day, and the homework assignments.
- If you email me (blord@wsesu.org) please include "bio parent" in the subject line.

Please don't hesitate to contact me. This is a fast-moving course. We all want students to be successful in it.

Please don't wait –call, email, or come by at any time!

-----Cut (or tear) here please!-----

****Please sign below to indicate that you have seen the syllabus and this form. Thank you!****

Student name (please print) _____

Student signature _____ Date _____

Parent/guardian name (please print) _____

Parent/ guardian preferred contact: phone email _____

Parent/guardian signature _____ Date _____

