

# AP Biology

## Course Outline

Mr. Ulrich

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Office: Room 132

Textbook: Mader Biology, 9<sup>th</sup> Edition

[mruulrichslandofbiology.com](http://mruulrichslandofbiology.com)

The Course:

### Unit 1 Structural Biochemistry (3 weeks)

*Much of this unit needs to be internalized over the summer by doing your summer assignment.*

### Unit 2 Cells and Cell Processes (8 weeks)

*A review of Cell Structure is part of your summer assignment. Metabolism is a major subunit.*

### Unit 3 Genetic Basis of Life (8 weeks)

*“Classical” genetics and biotechnology are major subunits.*

### Unit 4 Evolution (7 weeks)

### Unit 5 Organism Form and Function (2 weeks)

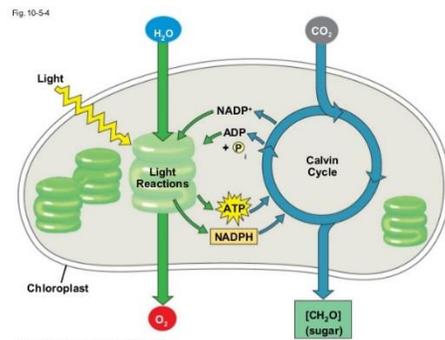
*The nervous system, endocrine system, and immune system are emphasized.*

*Ecology, Animal Behavior and Population Biology are covered in the lab class.*

### Preparation and Participation

Preparation for this class is extremely important – you need to budget close to one hour **each day (not each class)** to do well.

- In class, you need to come prepared: 3 ring notebook, Pencil/pen, lab materials – every day.
- The notebook needs to be used – take notes, write stuff down! Keep your papers neat and organized.
- You’re in this class so I shouldn’t have to tell you how important out-of-class study is, but just in case, it is very important (Karpicke and Roediger, 2008). You will be learning the same concepts in different modalities.
- If you can’t find time at home, come after school and work.



## Grading Policy: Quarters 1-3

- **Quizzes (60%)** – 10-20 multiple choice, a few “grid-in” questions, a long free response question and several short answer questions. Vocabulary Quizzes – can happen anytime; worth 5 points each. Vocabulary quizzes can be retaken; no do-overs for MC/FR. **Quarter 1 Quizzes will be worth 50%, the summer assignment is 10%.**
- **Laboratory Work (25%)** The college board has moved towards what are called inquiry-based labs;
- You have to design experiments, conduct them, write up results in a lab notebook
- We will be implementing some of the recommended activities (there are 13) this year.
- **Homework (15%)** is an essential part of this course!
- You must do homework, on time, every day.
- Do not wait for the last minute – do some every night when you get home.
- All students will participate in leading review of workbook homework at the beginning of class – part of your quarterly homework grade.

**4<sup>th</sup> Quarter:** Students will have several options after the AP exam is over. Most students last year chose to do the Pig Dissection Lab. If you want to do an alternative, discuss it with me and we'll make it work. The lab write-up and any on-line assignments will make up the bulk of the 4<sup>th</sup> quarter grade.

## Other things to know

- All power points, worksheets, and activity/lab material are posted.
- Looking up and copying answers from online resources might get you HW credit but short changes you on the quizzes (which count WAY more than the HW) and the AP exam.
- Working consistently every day works, leaving things to the last minute does not! Put in a modest amount of time *every single day*, not just right before class or not at all.
- Sign up and pay for the AP exam online. Information on how to do that is available.

Citations:

Karpicke, JD and Roediger, HL The critical importance of retrieval for learning *Science* 15 Feb 2008:  
Vol. 319, Issue 5865, pp. 966-968