

Highlights

Lecture highlights are my perspectives of what I said in class in a brief format. If this is useful to you, great. If not, don't worry about it.

1. All students need to read the course syllabus. You can download it from the Schedule page. <http://oregonstate.edu/instruction/bb350/bb350syllabus.doc>
2. Biochemistry as a science is relatively new, at least in its present form.
3. Our understanding of the basis of life has evolved from examining the organism as the foundation of life down to cells, then down to organelles, and then finally down to molecules.
4. Molecules are the foundation of life and are the basis of molecular biology.
5. Prokaryotes (bacteria) differ from eukaryotes in the composition of their cells. Eukaryotes have organelles and prokaryotes do not. Eukaryotes include yeast (single celled, dog, cats, plants, humans, and more). All prokaryotes are unicellular.
6. The nucleus holds DNA, chromosomes, and RNA. The mitochondrion is involved in energy production. The chloroplast is involved in photosynthesis in plants.
7. Cells have a cytoskeleton, which to a cell what a skeleton is to you.
8. Cells require energy to exist. There are many reasons for this, but one is the need to counter the forces of entropy.
9. Cells store energy in ATP for immediate use. The potential energy stored in ATP arises from the repulsion of the negatively charged phosphates for each other.
10. The building blocks of DNA and RNA are nucleotides. The building blocks of protein are amino acids. There are 20 amino acids in proteins.

A reminder to students in the class - I will continue to provide videos so long as attendance is high. On days when attendance is low, such as on days of nice weather, I will tend to have extra credit for those who are in class. If this does not keep attendance high, I will stop making videos.