

Biology 2201 Unit Checklist

Each student is expected to be able to do the following from Unit One : “Matter and Energy For Life”

You should be able to...

- Know what Needham, Redi, Pasteur, and Spallanzani did (& how Pasteur was criticized by his scientific peers)
- Explain the difference between biogenesis and abiogenesis
- Know how the microscope affected peoples paradigms and the advancement of science knowledge
- Explain the difference between prokaryotic and eukaryotic cells
- Compare light, TEM, and SEM microscopes (know how they are similar and different)
- List the main organelles of a cell and what they do
- Compare and contrast plant cells with animal cells
- Name microscope parts and know what they are for
- Understand how to use a microscope and take care of one
- Know how to make a wet mount stained slide
- Understand how materials are moved in or out of a cell (osmosis, diffusion, active transport, passive transport, endocytosis, exocytosis, pinocytosis, phagocytosis)
- Explain the difference between hypotonic, hypertonic, and isotonic solutions and what they do to cells
- Understand why cells have to be small
- Compare and contrast the processes of photosynthesis with cell respiration