**Advanced Biotechnology 2016-2017**

**Dr. Steven Werden**

This course designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology. Students attain knowledge about the field of biotechnology and deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the biotechnology industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, research projects, guest speakers, and workplace visits. The objectives covered in this course are both academic and technical in nature and are presented in a progressively rigorous manner. Its goals and expectations are different than most high school classes.

**Course Goals:**

* A general knowledge of the goals and functions of the biotechnology industry – the “big picture.”
* Experience with the processes used in the biotechnology industry, including experimental design, use of scientific equipment, data analysis and interpretation, critical thinking and communication.
* The development of good business practices, organizational skills and self-reliance.

**Course Requirements:**

* Biotechnology students are expected to be present and prompt to class every day.
* Biotechnology students are required to develop lab and industry skills.

**Class Procedures:**

* Respect yourself and the rights of others to learn and work.
* Be prompt- be in class (i.e. at your job), seated, with materials, ready to work when the bell rings.
* Every day have the following materials: your legal, scientific notebook, a black pen, and a calculator
* Do NOT eat, drink or chew gum at the lab station unless given permission by the teacher. Students may have water in a container with a tight- closing lid at their desks but not at the lab stations.
* BEHAVE in a safe and responsible manner at all times. Horseplay, practical jokes and pranks are dangerous and prohibited.
* Use all equipment correctly, safely, and as directed. If you do not understand something, ask the teacher before proceeding.
* All lab safety rules & procedures will be followed as instructed
* Observe good HOUSEKEEPING practices. Work areas should be kept clean and tidy at all times. Return all supplies/equipment to proper storage area.
* Immediately inform the teacher of any injuries, no matter how small it may be.
* Sit in your assigned seat, until dismissed by the teacher- not the bell
* Power Down: Cell phones will be off and out of sight while this sign is posted.  Confiscation will occur otherwise.
* Assignments:
  + Turn in all completed assignments into the appropriate tray located by the door
  + Any assignments turned in late will be penalized according to the DHS Late Work Policy
* Absences:
  + Obtain make-up work from the labeled file by the First Aid box
  + You have one day per day of absence to complete make-up work
  + Any work assigned before your absence is due the day you return from your absence
  + If you’re absent the day before a test, or the day of the test, you must take the test when you return if no new material was taught during your absence.
* Re-tests:
  + Offered after the original test & administered as per DHS re-test policy
  + Re-test dates will be posted accordingly
* Passes:
  + DHS policy is that no hall passes are permitted during the first 10 & last 10 minutes of each class period
  + Please, do not interrupt instruction; be courteous & wait until instruction is finished before you ask for a hall pass
  + Only one person is allowed out of the room at a time—no exceptions
* Cheating or Plagiarism
  + Will **not** be tolerated and violators will be penalized according to DHS policy.

Remember- honesty, is something you do when others are not looking.

* Grading Policy:
  + 50% daily grades from handouts, worksheets, quizzes, lab, etc.
  + 50% major from tests, projects, reports, etc.

Biotechnology students will have opportunities not available to others, including sophisticated laboratory research, guest speakers, “meaningful” readings/activities/discussions/ presentations, and possible field trips. It requires a commitment from the students and the adults in his or her life.

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Tutorials: Tuesday 2:50-3:20 PM and Thursday 6:50-7:20 AM or by appointment

Contact Information: (281) 327-8766

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