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Instructional Coordinator: Andy McWhirter amcwhirter@naperville203.org

Mission: To educate students to be self-directed learners, collaborative workers, complex thinkers, quality producers, and community contributors.

Course Description: Biotechnology is an advanced course designed to introduce students to the terminology, techniques and applications of biotechnology. This is a lab based class where class participation is critical to success. Laboratory activities are an integral part of the curriculum, including the use of electrophoresis, micropipettes, PCR, and bacterial plating. In addition, students will learn appropriate laboratory documentation and analysis skills. The teacher’s role is to guide students and expose them to new material, but the student is ultimately responsible for utilizing all of the resources to master the subject.

Course Learning Units:
- Introduction including medical, agricultural and environmental biotechnology and biomedical ethics
- Genetics
- DNA and DNA analysis
- Recombinant techniques
- Proteomics
- Lab Techniques and Methodology (applied to all units)

Grading: The course grade will reflect student learning and the student’s ability to apply and demonstrate knowledge. Due to the nature of the course, many lab activities cannot be completed outside of the designated lab date. Therefore, absences on lab days may impact a student’s overall grade.

Overall Semester grade:

- 85% Course work
- 15% Final Exam

Course Work: Within each unit, summative and formative sections are weighted as follows

- 80% Summative (lab techniques, assessments, projects, lab practicals)
- 20% Formative (daily work; quizzes)

Grading Scale:

A = 90-100%  B = 80-89%  C = 70-79%  D = 60-69%  F = <59%

Reassessment Policy: There will be NO retakes given on any assignment, quiz, lab or test during the spring semester.

Communication:
- Students should contact their teacher directly to seek extra help, communicate information or express concerns.
- It is extremely important that students discuss missing a lab due to pre-planned absences such as college visits, field trips, and assemblies with the teacher in advance of the lab. Missing class on lab days may impact the lab grade.
- Teachers make every effort to respond to emails and phone calls within 48 hours during the work week. Individual teachers will notify students of their office hours and availability.