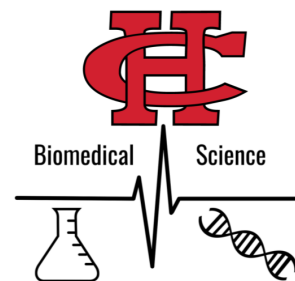


Cedar Hill High School STEM Center
1515 W Beltline Rd
Cedar Hill, TX 75104
Website: chisd.net

Course: Principles of Biomedical Science
Class location: T217
Teacher: Ms. Koné
Email: meagan.kone@chisd.net
Website: <https://www.chisd.net/Domain/2339>



Course Description:

Through both individual and collaborative team activities, projects, and problems, students will tackle real-world challenges faced by biomedical professionals in the field. They will work with the same tools and equipment used in hospitals and labs as they engage in relevant hands-on work.

Class Materials: Pen/Pencil, Chromebook

Grading Policy: Daily Assignments – 70%; Tests – 30%

Late Work: 10% off per day, after 5 days maximum of 50% credit unless otherwise noted on a project rubric.

Extra Help: Students can always email me with any questions they have. I am available before school on your designated class day between 6:50-7:20 AM by appointment.

Classroom Guidelines:

- Be on time and prepared for class with all required materials
- Be respectful of people, the classroom, and classroom materials
- Complete all assigned work on time
- Seek out extra help if needed
- Use appropriate language for the classroom
- No food, beverage, or gum
- Use electronic devices as directed for educational purposes exclusively

Curriculum Completion:

We will be accessing your coursework via my.pltw.org. On the first day of class you will create an account and will access that account every class thereafter. You will also receive a laboratory notebook in which you will complete the coursework accessed via my.pltw.org. Laboratory notebooks will remain in the classroom at all times unless approved by Ms. Koné.

Course Outline Topics:

Unit 1: Medical Investigation - In Unit 1 students engage in forensic science and medical examination investigations to explore biological and forensic science careers and gain experience in experimental design and data analysis. Through the investigation of a mysterious death, students learn about:

- Biomolecules and their role in determining identity
- Human anatomy and physiology
- Interconnectedness of systems

Unit 2: Clinical Care – Students assume the role of different medical professionals working through the schedule of patients in a family care clinic. Over the course of the unit, students:

- Explore medical careers
- Practice professional communication
- Gain experience collecting, recording, and interpreting physiological data
- Learn how to perform routine medical tests and evaluate results

Unit 3: Outbreaks and Emergencies -Working as public health officials and then as emergency responders, students are presented with a series of events they must address while exploring careers in epidemiology, public health, microbiology, and emergency medicine. Students have opportunities to develop their professional communication and presentation skills. Key skills highlighted include data analysis, medical decision-making, patient diagnosis, identification of agents of disease, first aid, triage, and strategies involved in disaster preparedness and response.

Unit 4: Innovation Inc. –Welcome to PLTW Innovation, Inc., an incubator for innovation where some of the best minds in science and engineering endeavor to solve some of the world’s most pressing biomedical challenges. Students tour PLTW Innovation, Inc. labs and engage in experiences designed to build their engineering and experimental design process skills and to create solutions to current and emerging issues both on and off this earth. Students will build their computer science skills by using computer-aided design (CAD) and geographic information system (GIS) and unite these skills with their science and engineering experiences to innovate the future of medicine. This unit demonstrates that solutions to biomedical science problems rely on collaboration between professions.

Academic Dishonesty:

Cheating is defined as giving and/or receiving unauthorized assistance on a test, paper, or other assignment. Cheating includes, but is not limited to, bringing notes into an exam, sharing/copying answers on an exam, or using an electronic device during an exam. Cheating will not be tolerated. The first offense will result in loss of credit for the assignment/ assessment with no opportunity to recover credit. Additional offenses will result in a referral to administration.

Plagiarism is defined as attempting to pass off the work of others as your own. Examples of plagiarism include copying a friend’s work, buying papers, using quotes without citations, paraphrasing without citations, or resubmitting work from other classes (self-plagiarism). Plagiarism will not be tolerated. All work reports will be checked for plagiarism using Google Classroom. For the first offense, the student will be given the opportunity to create a new work for submission, for a maximum of 70% credit. Further offenses will result in loss of credit for the assignment and referral to administration.