**Principles of Biomedical Sciences Syllabus**

**Chino Hills High School**

**Mr. Morales**

**WELCOME** to Project Lead the Way and the Biomedical Sciences Program. Chino Hills High School and The Health Science Academy are very excited to be offering a program that prepares students for a career in biotechnology, medicine or a health related field.

Project Lead the Way is a national, not-for-profit educational program that assists high-school students in developing strong backgrounds in science and engineering. This dynamic program uses hands-on, real world curriculum to engage and challenge students to achieve their highest potential.

The following is the link to Project Lead the Way. Please visit the website for information regarding the Biomedical Sciences Program.

 http://www.pltw.org

**CONTACT: School email:** **Richard\_Morales@chino.k12.ca.us**

**Voicemail: 909-606-7540 Ext 5235**

Students and parents if you have any questions concerning, grades, homework, labs or any issue you would like to discuss, please feel free to use the above contact information. I will do my best to return your call or email as promptly as possible. I am here for you, so if you have any questions please do not hesitate to contact me.

**Objectives:**

 This course provides an introduction to the biomedical sciences through exciting “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bio-informatics. A theme throughout the course is to determine the factors that lead to the death of a fictitious person. The students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts including homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Additional biological principles including the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate. The course is designed to provide an overview of all the courses in the Biomedical Sciences Program and to lay the scientific foundation necessary for student success in the subsequent courses in the pathway. The course contains the following units:

Unit 1 - Human Body Systems Unit 5 - Hypercholesterolemia

Unit 2 – Heart Disease Unit 6 – Infectious Disease

Unit 3 – Diabetes Unit 7 – Medical Interventions

Unit 4 – Sickle Cell Disease Unit 8 – Grant Proposal

**Notebooks:**

Students are recommended to keep and maintain a notebook for this class. A black and white composition lab book will suffice.

 **Grades:**

The following scale will be used for the marking periods: (Scale will be adjusted second semester with the grant proposal which will include the grant proposal under assessments)

60% Assessments & 40% Class Work, Homework, Presentations and Projects

**Grant Proposal**

Funding medical research through the grant writing process is the focus of Unit 8. In teams, students prepare a written grant proposal and give an oral presentation based on the disease topic of their choice. The grant proposal is structured incorporating the National Institute of Health standards. This is an in-depth research project completed over a lengthy period of time. The background will be presented to the students in week 18.

**Attendance/ Tardy**

Students are expected to attend and be on time for each and every class. The attendance and tardy policies and procedures set forth in the student handbook will be adhered to and upheld.

**Late Work:**

Homework, projects, labs, etc. are due at the beginning of class on the assigned day. Late work will be docked 50% if it is late.

**Flash-drive**- We will be using a curriculum that the students can take home and put on their computer if they want to work outside of class. 1gb is the recommended size

**Make-Up Work:**

It is your responsibility to retrieve the work you missed. Ask your lab partners what you missed during your absence. Do not interrupt class for make-up work. You may see me before or after school to discuss the assignments. Labs cannot be made up. If you miss a lab, a make-up assignment will be given even if you have an excused absence.

**Classroom Expectations:**

**Be Present:** In order for you to learn, you must be present. The expectation is that you are in the classroom, willing and ready to learn each day. This class is fun but it is also challenging. If you miss class, you will get behind which ultimately causes you more work.

**Be Prepared:** Bring your notebook, writing utensils and a good attitude to class.

**Respectful and Courteous:** Please remember you are not the only one in class. You are to treat others in a tolerant, considerate, courteous and respectful manner at all times. This includes using appropriate language, speaking in a mature manner, keeping your hands to yourself and participating fully in classroom activities.

Many of the lesson activities in this class require group work. Therefore, participation and getting along with others is a necessary component of the course. I am here to help every one of you succeed and reach your highest potential. Seek help if you need help, ask questions and treat others respectfully and I guarantee this class is one you will not forget. Welcome to Biomedical Sciences.

I have read Mr. Morales’ guidelines, procedures, and expectations and agree to abide by them in the interest of the school, and the class in maintaining a quality education for all.

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Students Name- Print

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Student Signature Date

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Parent Signature Date

Questions/Comments/Concerns: