

### Syllabus and Course Outline S. Y. 2020-2021

Course Name : Biology

Teacher Name: Mr. Baldwin Noelito I. Que

Teacher Contact information:

Email : nque@cguhsd.org

School Phone Number : extn # 3944
Prep Period Time : Period 1
Room : L126

#### **Welcome to Biology Class!**

#### **Core Subject Description:**

This subject is designed to provide a general background for the understanding of the science of Biology. This course develops an appreciation of the beauty of life from its simplest composition at the molecular level to the global spectrum of complex ecological issues. It discusses Genetics, Cytology, Photosynthesis, Cellular Respiration, Populations, Ecology, and Evolution. Issues, concerns, and problems with life are also included. It also deals with the basic principles and processes in the study of biology. It covers life processes and interactions at the cellular, organism, population, and ecosystem levels.

#### **General Standards:**

The learner demonstrates an understanding of basic concepts and processes in Biology as deepened by other disciplines to analyze/solve problems critically, think innovatively / creatively, and make informed decisions to enhance the integrity and wellness of the human person, protect the environment and conserve resources to sustain the quality of life.

#### **Materials:**

If there is any difficulty obtaining these materials, please let your teacher know as soon as possible.

Colored pencils (suggested)
 Earbuds
 District/Personal Laptop
 Highlighters (any color)

Notebook, pencils, and erasers
 Personal sanitizers and face mask

#### **Grading Procedures:**

Quarter grades will be calculated from cumulative points per quarter from weighted categories. Semester grades will be calculated with each quarter being 40% and the final being the remaining 20%. Letter grades are assigned based on the scale listed below:

Grading Scale	Semester Grade Calculator	Weighted Categories
<b>A</b> = 90% - 100%	Quarter 1 = 40%	Assessments = 30%
<b>B</b> = 80% - 89%	Quarter 2 = 40%	Classworks & HW = 20%
<b>C</b> = 70% - 79%	Final Exam = 20%	Labs/Simulations = 30%
<b>D</b> = 60% - 69%	Total = 100	Online Participation = 20%
<b>F</b> = 50% - 59%		Total = 100%



#### **Checking your Grades:**

It is **expected** that students and parents regularly access PowerSchool to check grades. Also, students are expected to access their grades at least once a week and report on their progress grade through a grade check.

#### **Virtual Classroom Expectations:**

- A. Classroom Routine
- 1. Enter Microsoft Team site with Video on (ALWAYS).
- 2. Mute your microphone.
- 3. Sit up in front of the Laptop.
- 4. Headphones or speakers on.
- 5. Have all materials needed READY for the day!
- 6. Attendance
- 7. Announcements

#### **Virtual Policies Classroom Policies:**

- 1. **Dress Code:** Appropriate dress is required for all Team learning/meetings. Shirts must be worn, sleeveless shirts should cover the shoulder.
- 2. **Environment:** When you are online, please make sure that your background is not distracting to others and that everything in the background is appropriate for school. Ex: in front of a wall or bookcase.
- 3. Language: During online learning, please follow school rules for appropriate language.
- 4. Using screenshots of participant's pictures for any reason is not allowed.
- 5. The chat feature can be used, however, private chat from participant to participant is not allowed.
- 6. Active participation in class is expected from each student. This looks like answering questions either verbally or in chat, participating in discussions during breakout sessions, etc.
- 7. Your microphone should be muted unless directed otherwise by the teacher.
- 8. If you need to leave the meeting for any reason (such as use the restroom) please raise your hand (click the raised hand button) and ask the teacher to be excused for a certain number of minutes.
- 9. The teacher may mute or stop the video of any student who is not meeting expectations, this way the student may remain in the class.
- 10. During Online Classes, everyone is expected to respect the speaker may it be your teacher or fellow students. Avoid distracting the class any means possible to avoid sanctions as stated in the RUA.

#### Absences and Make-up Work:

- It is the <u>student's responsibility</u> to obtain any missed work and notes in cases of excused absences.
- If a long-term assignment has been assigned before the absence, the due date stands.
- Make-up work must be received within the number of days (s) of the excused absence and according to the time of the assignment or it will be treated as late work.
- Students will not receive any credit for work from an unexcused absence. It is important to be present every day in class.



#### **Late Work:**

- Due dates are posted several times and you are responsible for knowing these. If an assignment is not handed in when asked for or due, it is considered late.
- If late:
  - o You will not be reminded to turn in late work.
  - o Late work will be accepted at teacher discretion.
  - o Any late work accepted by the teacher will have a **25% deduction** from the final grade.

#### **Science Lab Notebook:**

Each student will be required to keep all work for this class in a composition notebook. The science lab book (composition notebook) will be used daily. The folder will be used for handouts. Periodically, the lab book will be checked for organization and completeness using a rubric. It is the student's responsibility to keep their lab books current. An up-to-date example of the lab book can be accessed before or after school.

#### **Course Outline:**

#### FIRST SEMESTER

Time Frame	Course Content			
FIRST QUARTER				
August	Class Introduction and Orientation on Virtual Learning  1. Teacher Introduction 2. Classroom and Virtual Learning Rules 3. Grading System 4. Teams and Blackboard Orientation 5. Browser Control and Outlook 365 6. Gizmos Orientation and Account Creation  Biology Pre-Test (Scientific Reasoning Assessment)  Laboratory Orientation 1. Safety Scenario 2. Article in Lab Safety 3. Becoming Familiar with Lab Equipment 4. Laboratory Safety and Contract			
August	Biology Process Skills and Characteristics of Living Organisms  1. What is Living? 2. Living or Non-Living 3. Lab: Observing the Characteristics of Life			

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August - September	<ol> <li>Structure and Function of Cells</li> <li>Prokaryotic and Eukaryotic Cells</li> <li>Cellular Structure and Function</li> <li>Function of Organelles</li> <li>Cellular Transport         <ul> <li>4.1 Passive Transport</li> <li>4.2 Active Transport</li> </ul> </li> </ol>
September	Biological Molecules and Enzyme Action  1. Macromolecules     1.1 Carbohydrates     1.2 Protiens     1.3 Lipids     1.4 Nucleic Acid  2. Enzymes
September - October	Cell Transport  1. General Structure of the Cell Membrane 2. Diffusion 3. Osmosis  Active Transport
October	The Cell Cycle  1. Mitosis 2. Significance of mitosis in cell replacement and tissue repair by stem cells and state that uncontrolled cell division can result in the formation of a tumor
END OF QUARTER 1	
Time Frame	Course Content
SECOND QUA	Photosynthesis
October	1. Sun and Energy 2. Chloroplasts (Structures) 3. Light Reactions and Calvin Cycle

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	Cellular Respiration	
November	Mitochondria     Glycolysis	
	3. Fermentation and Lactic Acid	
	<ul><li>4. Kreb's Cycle</li><li>5. ATP and Cellular Energy, E.T.C</li></ul>	
	Biogeochemical Cycles	
November - December	<ol> <li>Water and Oxygen Cycles</li> <li>Carbon Cycle</li> <li>Nitrogen Cycle</li> </ol>	
	Phosphorous and Sulfur Cycles	
December	S1 Final Exam	
END OF QUARTER 2		

#### SECOND SEMESTER

Timo Eramo	Time Frame Course Content			
	Time Frame Course Content			
THIRD QUARTER				
	DNA/ RNA and Protein Synthesis			
January	1. DNA/ RNA Structure			
	2. Replication			
	Transcription     Translation			
	5. Protein Synthesis			
	o. Trotein Cynthesis			
Mitosis and Meiosis				
February	1. Mitosis			
	2. Meiosis			
	3. Mutations			
	4. Sexual/ Asexual Reproduction			
	Genetics and Heredity			
February - March	1. Mendelian/ Non-Mendelian Heredity			
	2. Punnett Genetics			
	3. Pedigrees			
	4. Genetic Disorders			
END OF QUARTER 3				

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Time Frame	Course Content	
FOURTH QUARTER		
March	Ecosystem Dynamics, Functioning, and Resilience  1. Habitat and Niche 2. Limiting Factors 3. Carrying Capacity 4. Ecological Relationship 5. Ecological Succession	
	Biodiversity and Humans	
April	Biodiversity     Human Impacts on the Environment like:     A. Habitat destruction     B. Pollution     C. Introduction of invasive species     D. Overexploitation     E. Climate change	
Evolution		
April	Darwin's Theory of Evolution     A. Natural Selection     Adaptation	
	Evidence of Common Ancestry and Diversity	
April - May	<ol> <li>Fossil Record</li> <li>Comparative anatomy and embryology</li> <li>Similarities of cellular processes and structures</li> <li>Comparisons of DNA sequences between species</li> </ol>	
May	S2 Post-Test and Final Exams	
END OF QUARTER 3		

<b>%</b>					
WE HAVE READ AND UNDERSTOOD THE CONTENTS OF THE <b>BIOLOGY COURSE OUTLINE</b>					
Student's Signature	Parent/s' Signature				
Over Printed Name	over Printed Name				