Biology 9		**YEAR 2020-2021**
Location	**Room 204**	
Instructor	**Mr. Rust**	
Planning Period	**Period 4** **Phone: (724) 662 -5104**	**Parent Teacher Conferences may be scheduled before school from 7:45 to 8:00 or during the planning period.**
Email	**lrust@mercer.k12.pa.us**	
Class Website	Homework: https://www.mercer.k12.pa.us/domain/236 (Academics section under Middle/High School tab) Grades: https://mercerasdpa.tylertech.com/MercerASDPA_TSI_Live_360/login Google Classroom: https://classroom.google.com/	
Prerequisites	**Completion of 7th and 8th grade science courses**	
Description	**This course is broken into several units focusing on: a) Biological Principles – the composition of matter and how important compounds are formed b) Cells – their parts, how they function to maintain homeostasis, and how cells reproduce c) Genetics – how traits are inherited through genes d) Evolution – how new species are formed and the evidence science has to support this theory e) Ecology – factors that affect an environment. Throughout the course there will be various lab exercises for each unit. Students may be asked to write lab reports, to present projects and research, and will be required to keep a notebook with vocabulary terms and class notes.**	
Texts Used	• ***Biology*** **(Miller & Levine)**	
Homework Policy and Philosophy	**Homework will be assigned periodically throughout the year. It will provide students an opportunity to review of previously covered material. It is expected that each student will give his/her best effort on homework assignment-utilizing the textbooks and class notes/examples as references to complete homework. When assigned, homework may be checked for being attempted and complete. At the teacher's discretion, homework will be graded for being attempted /completed or for correct answers. Appropriate *work will be shown* which will enable the student and/or instructor to identify errors. Students will be expected to have homework with them when they arrive at class. Homework turned in 1 day late receives 50% credit. If a student is absent, the appropriate amount of time will be given to makeup the assignment. If a student consistently misses homework he/she will be referred to the R.I.S.E. program where he/she will face additional**	**Homework Philosophy** "The application of homework within almost every learning activity is a valuable means of reinforcement and evaluation. It is the teacher's role to define such assignments and the responsibility of the students to complete them on time. Parents must also assume their responsibility in regard to student homework; therefore, proper communication between the home and the school are vital in establishing assignments, which can significantly contribute to the overall educational process."

	consequences.	
Grading **96.5 A+** **92.5 A** **89.5 A-** **86.5 B+** **82.5 B** **79.5 B-** **76.5 C+** **72.5 C** **69.5 C-** **66.5 D+** **62.5 D** **59.5 D-** **Below F**	Students can ask the teacher at an appropriate time (not in the middle of class) to see his/her grade. Grades may be based on: • Quizzes • Tests • Homework • Projects • Lab work • Notebook • Participation Grades are calculated using total points system. **I use the computer grade book program and update grades at least weekly on the Tyler grading website. There will be many opportunities for assessment each nine weeks, and homework completion can make a big impact in a students' grade. ANY <u>PROJECT</u> NOT COMPLETED RESULTS IN AN "INCOMPLETE" FOR THE 9 WEEKS. Lab work <u>must</u> be made up. An incomplete can turn into an F if the project is not completed within a reasonable amount of time. Occasionally, if the student is absent for certain in-class assignments, the student will be exempt from the assignment – this does not count for or against the student. (This will be reflected as an 'E' on Tyler Grading)**	**Academic Integrity** "Students caught cheating, plagiarizing, copying homework and/or test, quizzes, and using a paper from the Internet will be given a "0" (zero) on that assignment. In addition, their name will be reported to the office and filed in the event of future violations. Repeated violation could result in removal from class and a non-passing grade." **When a student is in jeopardy of failing, a progress report will be sent home. This will occur during the 3rd and 6th weeks in junior high block classes, and any time after the 4th week in other classes.**
Classroom Expectations	1. Respect the classroom, the teacher, and other students. 2. Always be prepared. This includes bringing materials to class, completing homework assignments on time and using the restroom before class. 3. Take responsibility for getting missed assignments. 4. Do their very best and work to their potential **<u>every day</u>.** 5. Participate, but raise your hand. 6. Work "bell to bell". 7. Students should not be out of their assigned seat without permission. 8. Cheating of any type will not be tolerated. Violators will receive a "0" for	**Make-Up Work** "Students on a pre-approved trip of more than one day will be expected to makeup any work minimally on the second full day upon the student's return up to a maximum of five days. Students are required to get all missed work prior to pre-approved absence. For one day or one period - school related absence (athletics/academic games, etc) - it is the student's responsibility to make up the work upon their return to the classroom. It is recommended that they see the teacher ahead of time to determine what they will miss while they are gone." **Late to Class**

	the assignment, parents will be contacted, and a referral will be made to the office where the student usually receives a minimum detention for the first offense. 9. Follow the rules, regulations, and guidelines of the school and school district, in addition to certain laboratory rules. Special laboratory rules will be verbally given to students at the appropriate time.	"A student who is late to class will be given a verbal warning on the first offense. Additional offenses will result in a discipline referral to the office."
Required Materials	**Writing utensil, class notebook and a textbook. Students are expected to bring these materials <u>every day</u> unless otherwise notified.**	
Additional Help	**I am available before and sometimes after school when seen in advance by the student. Interested students should ask at least one day in advance to schedule a time.**	**Tutoring** Extra Assistance is available on a regular basis during school. Students should set appointments up with the Guidance Counselor in advance to schedule an available tutor.

OUTLINE OF MATERIAL EXPECTED TO BE COVERED IN THIS CLASS	
1st 9 weeks	**<u>Chapter 1</u> - The Science of Biology (Scientific Method, Biological Themes, Metric System, Microscopy)** **<u>Chapter 2</u> – The Chemistry of Life (Periodic Table, Chemical Bonds, Water Properties, Macromolecules, Enzymes)** **<u>Chapter 3</u> – The Biosphere (Ecology, Energy Flow, Nutrient Cycles)** **<u>Chapter 4</u> – Ecosystems & Communities (Climate, Niches, Succession, Biomes, Aquatic Ecosystems)** **<u>Chapter 5</u> – Populations (Growth and Limiting Factors, Human Growth)**
2nd 9 weeks	**<u>Chapter 6</u> – Humans in the Biosphere (Climate Change, Habitat Destruction, Pollution, Renewable Energies)** **<u>Chapter 7</u> – Cell Structure & Function (Cell Parts, Cell Transport, Homeostasis)** **<u>Chapter 8</u> – Photosynthesis (ATP, Process Overview)** **<u>Chapter 9</u> – Cellular Respiration & Fermentation (Process Overview, Fermentation Process)** **<u>Chapter 10</u> – Cell Growth & Division (Reproduction , Mitosis, Differentiation, Meiosis)**
3rd 9 weeks	**<u>Chapter 11</u> – Genetics (Punnett Squares, Other Inheritance Patterns)** **<u>Chapter 12</u> – DNA (Genes, DNA Structure, DNA Replication)** **<u>Chapter 13</u> – RNA & Protein Synthesis (RNA, Ribosomes, Mutations)** **<u>Chapter 14</u> – Human Inheritance (Human Chromosomes, Human Genetic Disorders)** **<u>Chapter 15</u> – Genetic Engineering (Recombinant DNA, G.E. Process, Ethics)** **<u>Chapter 16</u> – Darwin's Theory of Evolution (Theory, Evidence for Evolution)**
4th 9 weeks	**<u>Chapter 17</u> – Evolution of Populations (Genes and Variation, Speciation, Molecular Evolution)** **<u>Chapter 18 & 19</u> – History of Life (Basic Cladistics, Fossil Record, Patterns of Evolution)** **<u>Keystone Review</u>**

	Keystone Exams **Final Course Exam**

This syllabus is subject to change at the discretion of the instructor.