North Magnet High School
Biology
Full Course Syllabus

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Plan Periods: A7 & B8
Teacher Web Site: Canvas
Office/Classroom: Room 234
Best times to contact: Monday-Friday (2 p.m-3 p.m.)

Course Description
This course engages students in inquiry-based problem solving as they investigate biological issues that are relevant to their daily lives. Topics of study include: structure and function; inter-dependent relationships in ecosystems; matter and energy in ecosystems; inheritance and variation of traits; biological evolution; Earth’s systems; history of Earth; and sustainability. This course meets the district requirement for biology.

Instructional Philosophy
With the successful completion of a science course, students should be expected to look at the world around them making logical connections to science concepts. It is my goal as a science teacher that students leave my classroom with a better understanding how the world around them works and the beauty that comes with that understanding. I believe differentiation and inquiry are strong components used to engage the student in learning scientific concepts. Each student deserves to learn, and an effort should be made to connect with each student to drive that learning. The use of kinesthetic, visual, and auditory based lessons encourages students to be successful, using their personal learning style. Engaging the students in activities and labs will build inquiry skills needed to be taken out into the student’s daily environment. Questioning possibilities, problem solving, and critical thinking skills can increase with the use of inquiry and builds well rounded citizens.

Nebraska College and Career Ready Standards for Science
SC.HS.6.1 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.
SC.HS.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.
SC.HS.8.3 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.
SC.HS.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.
SC.HS.10.5 Gather, analyze, and communicate evidence of biological evolution.
SC.HS.13.3 Gather, analyze, and communicate evidence to defend the position that Earth’s systems are interconnected and impact one another.
SC.HS.14.4 Gather, analyze, and communicate evidence to interpret Earth’s history.
SC.HS.15.5 Gather, analyze, and communicate evidence to describe the interactions between society, environment, and economy.

Major Units of Study
Unit 1: Earth Systems and Ecology
Unit 2: Structure and Function
Unit 3: Heredity
Unit 4: Biological Evolution and Earth’s History
Unit 5: Sustainability

Course Expectations
• Complete coursework, both in and out of class, in a timely fashion.
• Participate during in-class discussion and cooperative learning opportunities.
• Complete formal lab write-ups.
• Create technology-based projects and presentations.

Class Rules and Expectations

Be Respectful, Be Responsible, Be accountable
• Rules and guidelines set forth in the student handbook will be followed in this class.
• Respect yourself and all others, both students and adults, by allowing all persons to maintain their dignity, unconditionally. Language should reflect your understanding that this is a classroom in which everyone is welcome and respected, regardless of difference or ability.
• **Responsibility falls on you to be in class and on time:** entering after the bell has stopped ringing will be counted tardy. It is also my class expectation that you are responsible for bringing your school laptop (w/ charger) to each class session*. You also need to be a responsible, positive advocate for your needs and the needs of others.
  o *Much of our work will be done with the aid of technology (school laptops). If you have not elected to check out a computer, I will have alternatives for you. However, if you elected to check out a device it is expected that you bring it with you to each lesson.
• **Be accountable for your education!** Be a positive, active participant in my classroom. Have learning materials ready, complete your assignments on time, participate in classroom activities and discussions respectfully, and raise your hand to ask or answer questions.
• **Electronic Devices:** No electronic devices (cell phones, mp3 players, games, etc.) are permitted to be seen, heard, or used in the classroom at any time, per school policy. Laptops may only be used for classwork, activities, and research. If you cannot follow this expectation, you will need to do an alternative assignment that does not require the technology.

**Safety Expectations**
Biology is a lab-based course with safety as an essential component. The safety guidelines support and encourage an investigative approach and laboratory instruction, while at the same time assisting in the development of a safe learning environment. Students will follow the Omaha Public Schools district guidelines on safety that is published in the science safety contract. Students will be provided a copy of the guidelines. The students, parents and/or guardians are expected to read the guidelines and sign and return the signature portion of the contract. The student will not be allowed to participate in the lab activities until the signed contract is returned.

**Texts**
- *Biology Foundations* by Miller and Levine- all students will have access to the online textbook through their Office365 account. Please contact me with issues accessing the textbook.

**Assessment (please see OPS Secondary Grading practices below for more information)**
- Course grades will be determined by planned assessments such as tests, quizzes, projects scored with rubrics, and laboratory write-ups.
- Major tests and/or writing projects are to be expected at the end of each major unit outlined above.
- **State Testing:** To address state requirements, all 11th grade students will complete the ACT.
- **District Testing:** District Testing: The NWEA/MAP test will be administered periodically throughout the school year.

**OPS Secondary Grading Practices**
All coursework and assessments are judged based on the level of student learning from “below basic” to “advanced.” This course will provide multiple opportunities to achieve at the “proficient” to “advanced” levels. Students are evaluated based on a proficiency scale or project rubric. Proficiency scales for this course are available upon request (teacher will identify location such as portal, teacher website, attached, etc.)

**Weighting Assignments (Using A Multiplier)**
When entering grades in the grade book, teachers may assign greater weight to some assignments than others. For example, the final exam may impact a student’s summative grade more than a unit test. Teachers will have the option to use the multiplier to weigh both formative and summative assessments to a maximum of 4. If a weight of 2 or more is applied to an assessment, this information will be communicated to students at the time the assessment is announced.

**There are three types of coursework**
- **Practice**
- **Formative (35% of the final grade)**
- **Summative (65% of the final grade)**

**Grading Scale**
- A = 3.26 – 4.00
- B = 2.51 – 3.25
- C = 1.76 – 2.50
- D = 1.01 – 1.75
- F = 0.00 – 1.00
Redoing/Revising Student Coursework

1. Students are responsible for completing all coursework and assessments as assigned.
2. Students may be allowed redos and revisions of coursework for full credit during that unit of study based upon the teacher’s professional judgment and evidence collected throughout the unit. Scores for student work after retaking, revising or redoing will not be averaged with the first attempt at coursework or assessment but will replace the original student score.
3. Students are expected to complete assessments when given to the class, or if a student was justifiably absent, at a time designated by the teacher.
4. Redoing, retaking or revising will be done at teacher discretion in consultation with the student and parent(s). Teachers may schedule students before, during, or after school to address needed areas of improvement if not convenient during class. The time and location for redoing, retaking or revising will be done at the teacher’s discretion in consultation with the student and parent(s).

Late Coursework
Students are expected to complete coursework on time. Late coursework may be accepted for full credit until the end of the unit based on the teacher’s professional judgment and evidence collected throughout the unit. Accepted late work will not result in a reduction in grade and the M (Missing) will be replaced with the score earned by the student. The teacher or school may make exceptions depending upon student circumstances (such as prolonged absences due to illness).

Missing Coursework
Work not turned in at all will be recorded in Infinite Campus (district grade book) as an M for missing, which calculates to a score of zero.

Independent Practice
The role of independent practice is to develop knowledge and skills effectively and efficiently during the unit of study. Independent practice helps guide the learning process by providing accurate, timely and helpful feedback to students without penalty.

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<tr>
<th>Week</th>
<th>Unit Topic</th>
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| Weeks 1 – 11  | SC.HS.13 Earth’s Systems  
SC.HS.7 Interdependent Relationships in Ecosystems  
SC.HS.8 Matter and Energy in Organisms and Ecosystems |
| Weeks 12 – 18 | SC.HS.6 Structure and Function (Cells)                                      |
| Weeks 19 – 25 | SC.HS.6 Structure and Function (Mitosis/Meiosis)  
SC.HS.9 Heredity: Inheritance and Variation of Traits |
| Weeks 26 – 32 | SC.HS.7 Interdependent Relationships in Ecosystems (Group Behavior)  
SC.HS.14 History of Earth  
SC.HS.10 Biological Evolution |
| Weeks 33 – 36 | SC.HS.15 Sustainability                                                     |

Revised 08/13/2018