



**Hull High School
Integrated Science Syllabus
2019-2020**

Class Information:

Mr. Keith McKay

Mr. Michael O'Donnell

Room C109

Phone: 781-925-3000 ext. 2125

Email: kmckay@town.hull.ma.us

Google Classroom Code: lbkcnm

Dear Students, Parents, and Guardians,

Mr. O'Donnell and I will be co-teaching Integrated Science for the 2019-2020 school year. This will be my second year teaching at Hull High School; I previously worked as a chemist for over 10 years, but in 2017 I decided to leave the commercial science industry to become a teacher. You will find that I am passionate and enthusiastic about all types of science, and my goal is to inspire others to become interested in science as well. Mr. O'Donnell worked with the South Shore Collaborative from 1992-2000, and has been teaching at Hull High School since 2000. He is also the head coach for Hull High School football, hockey and baseball. We look forward to working with you this year as we all prepare for the 2020 Science MCAS!

Sincerely, Mr. McKay

COURSE OVERVIEW:

The purpose of Integrated Science is to provide science students with the tools to develop a foundational understanding of the physical world. In this course, students will study both conceptual and mathematical physics. This course will stress critical thinking, problem solving skills, and teamwork. Instruction will consist of lessons, demonstrations, class discussions, independent work, group work, and laboratory activities. This course is aligned with the 2016 Massachusetts Science and Technology/Engineering Curriculum Framework and will prepare students for the 2020 Introductory Physics MCAS exam.

COURSE MATERIALS:

Textbook

This class is based on the textbook cited below. Copies of the textbook will be available in class, but they will not be assigned to individual students to take home unless specifically requested. We will build our own electronic textbook on Google Classroom.

McLaughlin, C.W., Thompson, M., & Zike, D. (2005). *Physical Science*. Columbus, OH: McGraw Hill.

Calculator

Cell phone calculators will not be allowed in class at any time. Scientific calculators will be available in the classroom, or students may use their own calculator.

Physics Binder/Notebook

Students will keep a binder of all their handouts and assignments throughout the year. At the end of the year, this binder will serve as a portfolio to represent everything you have learned and accomplished in Integrated Science. This binder will stay in the classroom and will be maintained during class time.

ABSENCES:

If you are absent, please see me as soon as possible for any make-up work.

GENERAL RULES AND EXPECTATIONS:

Students are expected to attend class daily, be on time for class, and arrive prepared to learn. It is also expected that students will respect themselves and each other, take pride in their work, and always put forth their best effort. Cell phones are not allowed in class unless permitted by the teacher during special circumstances. Food is not allowed in class. Drinks are allowed if they are stored in a suitable container. Students in this course are required to come to class with necessary materials including a charged Chromebook. Plagiarism of any form will not be tolerated.

AFTER SCHOOL HELP AND MAKEUPS:

I'm available most days after the end of school unless there is a faculty meeting. If you need extra help, please do not hesitate to stop by. If you need to make up a missed test or lab, please speak with me ahead of time. I also may suggest that you stay after school for extra help.

COURSE CALENDAR:

The following calendar is my estimate of when we will cover topics throughout the year. This calendar is subject to change based on class needs and our school schedule. We will spend time reviewing topics in May, and we will go through a practice MCAS exam right before the Science MCAS in June. Instead of a standard final exam, a final project will be assigned after the MCAS has been completed.

<i>September</i>	Intro to High School Science
<i>September / October</i>	Motion
<i>October / November</i>	Forces
<i>November</i>	Newton's Laws
<i>December / January</i>	Mechanical Energy, Work, and Power
<i>January / February</i>	Thermal Energy and Heat
<i>March</i>	Electricity and Magnetism
<i>April</i>	Mechanical Waves and Sound
<i>May</i>	Electromagnetic Waves and Light
<i>May / June</i>	MCAS Review and Practice Test
<i>June</i>	MCAS Exam
<i>June</i>	Intro Physics Final Project

GRADING POLICY:

You will complete a wide range of assignments in this class including warm-ups, classwork, labs, quizzes, and tests. Assignments are designed to help you understand concepts and vocabulary, as well as to practice the skills that you will learn in Intro to Physics. Work will be accepted after assigned due dates for reduced credit. Grades will be posted regularly on Aspen, and I will use the following special codes: **A** (absent, counts as zero but can be made up), **M** (missing assignment, counts as a zero), and **R** (received but not graded). Acts of plagiarism will result in zeros for grades that cannot be made up and possible administrative action.

Participation and Classwork

Each day, you will be given a warm-up question or activity at the beginning of class. You are expected to participate during all lessons and all activities, and a participation grade of **0-10** will be given weekly. Classwork will be given to incorporate new vocabulary and concepts, and may consist of worksheets, problem sets, open-response questions, math practice, and group assignments. Classwork assignments will be graded as **✓+** (100), **✓** (85), **✓-** (70) or **Not Accepted** (0). Late assignments will be graded as 70, 60, or 50 respectively. Participation and classwork will account for **40%** of your term grade.

Quizzes

Open note quizzes will be given as often as possible. You may use your binder while taking quizzes, but your Chromebooks and phones may not be used. Quizzes may be taken independently or in assigned teams. Independent quiz work will be graded individually, but teams will earn a single quiz grade together. Quizzes will account for **20%** of your term grade.

Tests

Tests will be given at the end of each unit and I will always try to announce them at least one week in advance. Tests will be aligned with lesson objectives and will consist of multiple-choice questions, short-answer questions, and larger open response questions. Some sections of tests may be completed in teams. Point values for questions will be indicated on the test. After tests have been graded and returned to the class, test corrections may be allowed to recover missed points. Tests will account for **20%** of your term grade.

Labs

At least once per unit, you will complete a lab assignment in class. As part of the lab, you may complete pre-lab questions, a procedure, observations, measurements, calculations, post-lab questions, and a lab conclusion. A scoring guide will be provided before the first lab activity. Grades for labs that are handed in late will be reduced by 30 points. Labs will account for **20%** of your term grade.