**Buford High School**

Course Syllabus

 **Course Title**  **Honors Physics** **Term** 2018-2019
Teacher Mrs. Knutson room # 206

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| Email Address**Teacher Web Page** | lisa.knutson@bufordcityschools.org  |
| Teacher Support(Help sessions etc.) | Help sessions are available before school on Tuesday and Thursday from 7:10-7:40 am and after school on Monday and Wednesday from 2:45-3:30 pm in room 206. |

### Course Description

This is a one year honors level course in introductory physics. Concepts and quantitative applications covered in this course include mechanics (the study of motion), properties of matter, waves, electricity, magnetism, and modern physics. First semester focuses on types of motion, forces, momentum, and energy. Second semester incorporates light, sound, wave motion, electricity and modern physics. Students will be asked to think creatively, to manipulate simple formulas, and to work both independently and collaboratively.

### Course Curriculum Content

The Georgia Standards of Excellence for this course can be accessed online at georgiastandards.org.

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| **Georgia Standards of Excellence** | **Units/Topics** |
| **SP1.** Obtain, evaluate and communicate information about the relationship between distance, displacement, speed, velocity and acceleration as functions of time.**SP2.** Obtain, evaluate and communicate information about how forces affect the motion of objects.**SP3.** Obtain, evaluate and communicate information about the importance of conservation laws for mechanical energy and linear momentum in predicting the behavior of physical systems.**SP4.** Obtain, evaluate and communicate information about the properties and applications of waves.**SP5.** Obtain, evaluate and communicate information about electrical and magnetic force interactions.**SP6.** Obtain, evaluate and communicate information about nuclear changes of matter and related technological applications.  | 1. Kinematics: 1 D Motion
2. Kinematics: 2 D Motion
3. Dynamics and Forces
4. Momentum and Impulse
5. Energy, Work and Power
6. Electrostatics
7. Electricity & Magnetism
8. Waves & Sound
9. Light & Optics
10. Nuclear
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### Instructional Materials and Supplies

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| **Published Materials** | **Instructional Supplies** |
| GLENCOE *Physics: Principles and Problems*. Zitzewitz, Elliot, Haas, Harper, Herzog, Nelson, Nelson, Schuler, ZornMcGraw Hill, 2008.**Cost of Replacement $ 71.00** | 1. Binder/Notebook/Paper
2. Graph Paper
3. Pens/Pencils

4) Scientific Calculator5) Composition Book for Science Fair |

**Evaluation and Grading**

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| **Assignments** | **Grade Weights** | **Grading Scale** |
| Benchmark AssessmentsUnit Tests/QuizzesScience Fair ProjectLabsDaily WorkPerformance ExamWriting AssignmentsFinal Exam | Benchmarks/Final Exam (30%)Unit Tests (35%)Labs/Quizzes (20%)Daily Work (5%)Writing Assignments (10%)**NOTE: Assignments may be turned in one day later than the announced due date but are worth only 70% of the grade earned.** | A: 90 and aboveB: 80 – 89C: 70 – 79F: 69 or below**(A student must have a grade of 70 or higher in order to receive the 5 points at the end of the semester.)** |

**Other Information**

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| **Expectations for Academic Success** | **Additional Requirements/Resources** |
| 1. Read daily to review content
2. Ask questions and participate constructively as a

 team member. 1. Complete homework assignments
2. Challenge yourself to continuously improve
 | Students are required to read therules of laboratory conduct and sign the laboratory safety sheet before participation in lab activities can occur. Failure to follow the laboratory safety rules may result in removal from the laboratory area. |

**Honor Code:**

All BHS students will strictly adhere to the BHS Honor Code which is posted on the BHS website.

For any violation of the BHS Honor Code, students will receive a 0 and be referred to the administration.

**Make-Up Work:**

* **All pre-assigned work will be due on the day of a student’s return from an absence.**
* For **assignments which did not have a pre-assigned due date during the time of the student’s absence**, students will be given five days to arrange for make up work or follow other arrangements granted by the teacher.
* Assignments or tests that are not made up by the specified time **receive a grade of zero (0).**

**All policies outlined in the BCSS student CODE OF CONDUCT and the BHS student handbook will be followed in this classroom.**

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| **Teacher consequences for Minor Classroom Disruptions** |
| 1st  | Penalty assigned at teacher’s discretion – Parent Contact |
| 2nd | 30 minute faculty detention and parent contact |
| 3rd  | 1 hour faculty detention and parent contact |
| 4th  | Administrative Referral |

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**I have read and I understand the Honors Physics course syllabus, rules of conduct in the laboratory and laboratory safety sheet.**

Student’s name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s e-mail: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian’s name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian’s e-mail:

Parent/Guardian’s signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian’s telephone number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_