

COURSE NAME: Physics I Honors TEACHER: Mr. Chris Smith ROOM NUMBER: 305 PHONE: (702) 799-8888 extension 3305 EMAIL: chrissmith@interact.ccsd.net

COURSE DESCRIPTION:

This one-year course is designed for those students who are concurrently enrolled in or have completed Algebra II/Trigonometry and who exhibit an interest in science. Topics included are the following: laboratory procedures, mathematics applications, safety, waves, optics, relativity, kinematics, dynamics, energy, heat, electricity and magnetism, and atomic structure. Physics is a course that uses mathematical relationships to guide students toward a greater conceptual understanding of physical concepts and processes. Demonstrations and/or lab experiences are to be an integral part of this course. This course is distinguished as honors level by the instructional pacing and the delivery of advanced content. Instructional practices will incorporate integration of diversity awareness including appreciation of all cultures and their important contributions to our society. The appropriate use of technology is an integral part of this course. This course will fulfill one science credit toward high school graduation and qualifies as a laboratory science for college entrance.

COURSE GOALS:

- 1. To develop skill in using symbols, terms, equations, metric system measurement, and mathematical calculations to express physical processes. [NS: N.12.A]
- 2. To safely conduct scientific investigations and inquiry using appropriate tools, technology and mathematical concepts. [NS: N.12.A]
- 3. To incorporate charts, tables and graphs to communicate scientific understandings. [NS: N.12.A]
- 4. To use principles of physics to analyze the motion of objects. [NS: P.12.B]
- 5. To explore the dynamics of moving objects. [NS: P.12.B]
- 6. To examine how energy is transformed from one form to another. [NS: P.12.C]
- 7. To analyze applications of heat, thermodynamics, and kinetic molecular theory. [NS: P.12.C]
- 8. To analyze the attributes of fluids. [NS: P.12.C]
- 9. To recognize that energy may be transferred through wave motion. [NS: P.12.C]
- 10. To evaluate the behavior of light. [NS: P.12.C]
- 11. To explore that the conditions of matter can be described in terms of electrical and/or magnetic fields. [NS: P.12.B]
- 12. To develop an understanding of the nature of the atom. [NS: P.12.A]
- 13. To analyze fundamental differences between classical and modern physics. [NS: N.12.B]
- 14. To explore how models and modeling are used to explain concepts in physics.
- 15. To develop an awareness of the vocational opportunities in areas related to

physics. [NS: N.12.B]

16. To develop an understanding of character, ethics, and manners as appropriate for this course. [NS: N.12.B]

TEXTBOOK:

Holt <u>Physics</u> by Serway and Faughn Students will be required to pay \$65.00 for any lost or damaged textbook.

REQUIRED MATERIALS:

- Pencil and pen (blue or black ink)
- Scientific calculator (graphing calculator is NOT required)
 - Casio FX260HA and Texas Instruments TI-30X IIS are recommended
 - Avoid the Texas Instruments TI-30Xa
- Two 70+page spiral bound notebook (1 for each semester)

COURSE REQUIREMENTS AND GRADING PROCEDURES:

PROJECT-BASED LEARNING AND THE SIX TENETS

East Career and Technical Academy is dedicated to assessing student learning and achievement through Project-Based Learning (PBL). East Tech uses six tenets, or beliefs, to assess student performance during each PBL assessment. These tenets will be the basis of grading during each PBL project. The six tenets are as follows:

Category	Assessment Weight	
Content Knowledge	35%	
Collaboration	10%	
Problem-Solving	20%	
Technology	15%	
Communication	10%	
Presentation Skills	10%	

GRADING POLICY

The purpose of grades is to provide effective feedback to students, parents, and the school administration about a student's progress towards mastery of the established standards for a particular course or subject. As such, other factors such as attendance, effort, and behavior will not be considered when calculating a student's grade; however, excessive absences (more than seven unexcused absences during a semester) may result in a loss of credit in accordance with CCSD Regulation 5113. Extra credit will not be permitted unless the work is specifically designed to provide more evidence of a student's progress towards mastery of the established standards.

90-100%	=	Α	Consistently Exceeds Standards
80-89%	=	В	Consistently Meets Standards
70-79%	=	С	Approaching Standards
60-69%	=	D	Emergent
59% and Below	Π	F	Does Not Meet Standards

Students will be graded on a 0-100 point scale, with the following grade equivalents:

In order to demonstrate sufficient evidence of proficiency, a student will be required to make arrangements with the teacher to make-up any assessments missed due to an absence. Failure to complete required assessments may result in a lower grade or a failing grade due to a lack of evidence.

According to CCSD regulation 5121, "Semester exams shall be comprehensive of the material covered during the semester and may be worth up to, but not exceed, 20% of the student's final semester grade. Final semester grades shall reflect assignments and assessments completed throughout the semester and the final exam grade." Semester grades will be calculated as follows:

Quarter 1/3	Π	42.5%
Quarter 2/4	Ш	42.5%
Semester Exam	=	15%
Semester Grade	Ш	100%

MAKEUP WORK POLICY

According to CCSD Regulation 5113, teachers shall provide an opportunity for a student to make up missed work due to any absence, and students shall be held accountable for the work. When a student is absent, however, the educational experiences lost during that absence might be irretrievable because the instruction and interaction in the instructional setting cannot be duplicated through makeup work.

After any absence, a secondary student is required to initiate contact with the teacher(s) to obtain appropriate makeup work within three school days immediately following the absence. Once contact has been made with the teacher(s), specific makeup work must be completed and returned to the teacher(s) within a reasonable length of time, to be determined by the teacher and communicated to the student/parent or legal guardian. The makeup work must be returned to the teacher(s) by the specified due date if it is to be acknowledged. Students shall be allowed a minimum of three (3) days to complete makeup work.

LATE WORK POLICY

Late work that is considered practice (homework, classwork, etc.) will be accepted and graded for credit at the teacher's discretion.

It is the **student's** responsibility to request make-up work upon return to school. The student will have **3 days** to complete make-up work unless other arrangements are

made. Test and quizzes must be made up before or after school by appointment. Make up work will be available in the classroom.

DISCIPLINE PROCEDURES AND CITIZENSHIP GRADING:

East Career and Technical Academy follows a school-wide Progressive Discipline Plan when students do not follow established rules and behave inappropriately:

STEP ONE:	Teacher-Student Conference (Warning)
STEP TWO:	Parent Contact by Teacher (Phone or Letter)
STEP THREE:	Counselor Referral
STEP FOUR:	Dean's Referral

A teacher may also issue classroom disciplinary consequences for infractions at his/her discretion.

CLASSROOM EXPECTATIONS

- Students must be on time and in their assigned seat when the bell rings.
- Bellwork is to be started immediately upon arrival.
- Students are to remain in their seat until the teacher dismisses class.
- Students must bring their pencil, pen, and notebook to class every day.
- No food or drink allowed in the classroom (water is allowed).
- Cell phones must be turned off and stored in students' backpacks.
- During lab activities, students will not receive a verbal warning. The consequences for disruptive or inappropriate behavior in lab are outlined on the Science Laboratory Safety Contract.
- All ECTA handbook policies will be enforced with no exceptions.
- Students are expected to behave appropriately and do the following <u>each</u> and <u>every</u> day:
 - Be prepared Behave responsibly Be punctual - Turn in work - Stay attentive - Participate

It is the expectation of East Career and Technical Academy that students will arrive on time to every class. Not only are students developing skills for success in high school, but also for the rest of their lives. The Progressive Discipline Plan will be followed for students who are tardy to class. Furthermore, if a student is 30 minutes or later to a class, he/she will be marked absent for that class.

The East Career and Technical Academy cell phone/nuisance item policy is in accordance with CCSD Regulation 5136 and the specific needs of the school. Any cell phone/nuisance items confiscated by a teacher will be brought to the Deans' Office and can only be picked up by a parent/guardian.

Some offenses are serious enough to warrant a referral to the Dean for the initial infraction (e.g.: physical violence, gross insubordination, truancy, etc.)

CITIZENSHIP POLICY

Category	Outstanding (O)	Satisfactory (S)	Needs Improvement (N)	Unsatisfactory (U)
Engagement	Consistently involved in class activities; contributes to overall learning process; collaborates with others and/or the teacher.	Engages in class activities, but may have to be encouraged; works with others or groups, but may not initiate collaboration.	Does not engage in class activities; rarely demonstrates initiative and may occasionally disengage from class.	Consistently uninvolved in class activities. Adamant refusal to work.
Preparation	Consistently prepared with materials; work is on time and may go beyond expectations.	Student has materials and submits work in a timely fashion and as expected.	Student may have had multiple instances of being unprepared, late work, or not completed as requested.	Consistently unprepared for class. Does not submit work on time or at all.
Behavior	Consistently respectful of both classmates and adults; Takes responsibility for individual actions; Consistently complies with school and classroom rules.	Respectful to both peers and adults. Occasionally accepts personal responsibility. Mostly complies with school and classroom rules.	Disruptive to others. Argumentative and defensive when disciplined. Disregard for school or class rules.	Consistent disrespect to classmates or adults. Regularly disruptive to learning process and violation of school or class rules.

BULLYING AND CYBERBULLYING

Bullying and cyberbullying are prohibited in public schools. No person shall tolerate or engage in bullying or cyberbullying at any District facilities, school buildings, in school buses, on school grounds, or at school-sponsored activities. This includes classrooms, hallways, locker rooms, cafeterias, restrooms, gymnasiums, playgrounds, athletic fields, school buses, parking lots, and other areas on the premises of a school. Violation of the rules may result in the student being suspended, recommended for behavior school placement, recommended for expulsion, or other disciplinary action (CCSD Regulation 5141.1).

- I. Under NRS 388.122, "bullying" means written, verbal or electronic expressions or physical acts or gestures, or any combination thereof, that are directed at a person or group of persons, or a single severe and willful act or expression that is directed at a person or group of persons, and:
 - a. Have the effect of physically harming a person or damaging the property of a person or placing a person in reasonable fear of physical harm to the person or damage to the property of the person; or

- b. Interfere with the rights of a person by creating an intimidating or hostile educational environment for the person; or substantially interfering with the academic performance of a student or the ability of the person to participate in or benefit from services, activities or privileges provided by a school; or
- c. Are acts or conduct described in paragraph (a) or (b) and are based upon the actual or perceived age, race, color, national origin, ethnicity, ancestry, religion, gender identity or expression, sexual orientation, physical attributes, physical or mental disability of a person, sex, or any other distinguishing characteristic or background of a person or association of a person with another person having one or more of those actual or perceived characteristics.
- d. The term includes, without limitation: repeated or pervasive taunting, namecalling, belittling, mocking or use of put-downs or demeaning humor regarding the actual or perceived age, race, color, national origin, ethnicity, ancestry, religion, gender identity or expression, sexual orientation, physical attributes, physical or mental disability of a person, sex, or any other distinguishing characteristic or background of a person; behavior that is intended to harm another person by damaging or manipulating his or her relationships with others by conduct that includes, without limitation, spreading false rumors; repeated or pervasive nonverbal threats or intimidation such as the use of aggressive, menacing, or disrespectful gestures; threats of harm to a person, to his or her possessions, or to other persons, whether such threats are transmitted verbally, electronically, or in writing; blackmail, extortion, or demands for protection money or involuntary loans or donations; blocking access to any property or facility of a school; stalking; and physically harmful contact with or injury to another person or his or her property.
- II. "Cyberbullying" means bullying through the use of electronic communication. The term includes the use of electronic communication to transmit or distribute a sexual image of a minor. "Electronic communication" means the communication of any written, verbal or pictorial information through the use of an electronic device, including, without limitation, a telephone, a cellular phone, a computer, or any similar means of communication.

Students who are subjected to, witness, or overhear incidents of bullying and cyberbullying are encouraged to report such incidents. Students should report any incident(s) of bullying and cyberbullying to a teacher, counselor, or school administrator.

ACADEMIC HONESTY

There is a clear expectation that all students will perform academic tasks with honor and integrity. The learning process requires students to think, process, organize, and create their own ideas. Throughout this process, students gain knowledge, self-respect, and ownership in the work that they do. Cheating and plagiarism violate the fundamental learning process and compromise personal integrity and one's honor. Students demonstrate academic honesty and integrity by not cheating, plagiarizing, or using information unethically in any way.

What is cheating?

Cheating or academic dishonesty can take many forms, but always involves the improper taking of information from and/or giving of information to another student, individual, or other source. Examples of cheating can include, but are not limited to:

- Taking or copying answers on an examination or any other assignment from another student or other source
- Giving answers on an examination or any other assignment to another student
- Copying assignments that are turned in as original work (this includes submitting the same assignment to two separate teachers without prior permission)
- Collaborating on exams, assignments, papers, and/or projects without specific teacher permission
- Allowing others to do the research or writing for an assigned paper
- Using unauthorized electronic devices
- Falsifying data or lab results, including changing grades electronically

What is plagiarism?

Plagiarism is a common form of cheating or academic dishonesty in the school setting. It is representing another person's works or ideas as your own without giving credit to the proper source and submitting it for any purpose. Examples of plagiarism can include, but are not limited to:

- Submitting someone else's work, such as published sources in part or whole, as your own without giving credit to the source
- Turning in purchased papers or papers from the Internet written by someone else
- Representing another person's artistic or scholarly works such as musical compositions, computer programs, photographs, drawings, or paintings as your own
- Helping others plagiarize by giving them your work

Students must produce work that is theirs alone, recognizing the importance of thinking for themselves and learning independently, when that is the nature of the assignment.

Dear Parent/Guardian,

Please sign this page and have your child return it to me this week. If you have concerns or questions about this course, you can contact me at 799-8888. You can also reach me via email at: chrissmith@interact.ccsd.net. I look forward to meeting you and becoming a partner in your child's educational experience at East Career and Technical Academy.

Sincerely, Chris Smith

I HAVE READ THESE COURSE EXPECTATIONS AND UNDERSTAND THE **EXPECTATIONS FOR MY CHILD THIS YEAR.**

Parent/Guardian Signature

I HAVE READ THESE COURSE EXPECTATIONS AND UNDERSTAND THE EXPECTATIONS FOR ME DURING THIS SCHOOL YEAR.

Student Signature

Student Name (Print)

Please indicate your preference, and sign and date this form below.

I give my child permission to view "PG" rated films.

I do not give my child permission to view "PG" rated films with the understanding that an alternative assignment will be given.

Parent/Guardian Signature

Date

Date

Date

Student Number

SCIENCE LABORATORY SAFETY CONTRACT

Students who are deemed by the teacher to have demonstrated prior behavior that is disruptive or which would endanger themselves or others during laboratory activities will be removed to the Dean's Office.

Students are expected to follow the safety rules at all times. Habitual inappropriate behavior may result in the student not being allowed to participate in any lab activities. Instead, he/she will be removed to another classroom during laboratory activities.

Please initial next to each rule to indicate your agreement.

- I will act responsibly at all times in the laboratory.
- I will not wander out of my assigned work area.
- I will follow all instructions about laboratory procedures given by the teacher.
- _____ I will keep my area neat while working in the laboratory and will follow all cleanup procedures.
- _____ I will wear my safety goggles at all times in the laboratory and protective clothing when necessary.
- _____ I will immediately notify the teacher of any emergency.
- _____ I know who to contact for help in the event of an emergency.
- _____ I will tie back long hair, remove jewelry, and wear shoes with closed ends (toes and heels) while in the laboratory.
- _____ I will not take chemicals or equipment out of the laboratory without permission from the teacher.
- _____ I will never eat (including gum) or drink in the laboratory unless instructed to do so by the teacher.
- _____ I will only handle living organisms or preserved specimens when authorized by the teacher.
- _____ I will not enter or work in the storage room unless supervised by a teacher.
- _____ I will not use equipment inappropriately and will not disturb experiments set up by other students.

I, _____, have read each of the statements in the Science Behavior Contract and understand these behavioral and safety rules. I agree to abide by the behavioral and safety regulations and any additional written or verbal instructions provided by the school district or my teacher.

Student Signature

Date

Parent Signature

Date