



Edna Karr Secondary School



A Nationally Recognized Blue Ribbon School of Excellence

PHYSICS I

SCHOOL YEAR: 2009-2010

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Room 123

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COURSE DESCRIPTION

Physics I includes the topics of force and motion, forms of energy and their transformations, conservation of energy, interactions of energy and matter, and nuclear energy. Contemporary applications are illustrated through laboratory procedures, mathematical skills through advanced mathematics are used in problem solving. **Prerequisites: one unit of Science and one unit Elementary Algebra (minimum)**

TEXTBOOK

Holt Physics, Faughn, Serway, Holt, Rinehart and Winston, 2000, price \$56

SUPPLEMENTALS (AVAILABLE ON [EDNA KARR'S WEBSITE](#))

Assigned Readings

Assigned Worksheets

STUDENT SUPPLIES

Scientific Calculator **

1-inch 3-ring notebook labeled with your name, subject, and teacher

Notebook paper (*loose leaf*)

Dividers with tabs (Quizzes, Notes, Homework, Classwork, Laboratory/Projects)

Graph paper

No. 2 Pencils

Black or Blue ink pens

Red pens

\$15.00 Lab Fee – Due by Monday, August 24th

ALL MATERIALS MUST BE IN CLASS DAILY STARTING MONDAY, AUGUST 24th!!!

STUDENT EVALUATION

Category and Weight

Classwork/Homework*

10%

Quiz

15%

Laboratory Reports**

15%

Projects/ Oral Presentations

15%

Tests

20%

Comprehensive Semester Final

25%

Final Grade***

A: 93.0 – 100

B: 85.0 – < 92.0

C: 77.0 – < 84.0

D: 70.0 – < 76.0

F: < 70.0

* *Homework is only checked for completeness. Due to this fact, homework is never accepted late.*

** *Laboratory Reports will not be accepted if date exceeds 10 days with respect to the due date.*

*** *Student grades at Edna Karr are based on a semester of work. Students will earn ½ unit of credit at the end of each semester (fall and spring) this year. First (1st) quarter and third (3rd) quarter will be progress reports only.*

CLASSROOM ENVIRONMENT

Your science classroom will be a consistent and structured environment that promotes learning for all. We Cougars will maintain these basic values:

- Come to class every day!
- On task at all times!
- Use appropriate voice level!
- Get prepared!
- Act Responsibly!
- Respect others!
- Safety always!

CLASSROOM RULES

Be **Ready!** means be on time, in your seat, and ready to start at second bell.

Be **Respectful!** means

- Listen quietly to others when they speak. **Use of any electronic devices is prohibited.**
- In class discussions, raise your hand and wait for teacher recognition before you speak.
- Do not touch any materials or equipment unless told to do so and then use them carefully and thoughtfully. Remember to return all materials and clean up when you are finished.
- The chairs and table surfaces must remain clean and unmarked.
- Food, candy, and gum **are not allowed** in class or the lab area *at any time*.
- Bottled water is allowed in class area only but not soft drinks or fruit juices.

Be **Responsible!** means

- Have all your supplies with you in class each day.
- Maintain an organized science notebook with all current work. Keep all notes, handouts, and graded papers for the entire semester.
- Do all of your own work at all times. Inquiry Report group data collection and discussion of procedure is encouraged, but analysis, conclusions and all graded work must be your own.

Be **Reasonable!** means to always think first about your personal behavior and then speak and act in a safe, kind, and courteous manner. Simply put, “do the right thing.”

Students should be in proper uniform before he/she enters the classroom. For proper uniform information, please refer to pages 17 and 18 of the Edna Karr High School Student Handbook 2009-2010. The consequences for students who have difficulty meeting behavioral expectations can be also be found in the Edna Karr High School Student Handbook 2009-2010 on pages

CLASS ABSENCE POLICIES

1. You are ***responsible*** to find out about all missed work and assignments and to turn them in.
2. Quizzes will ***not*** be made up. If you have an excused absence, a missed quiz will ***not*** count towards your grade. All quizzes missed during an unexcused absence or tardiness will receive a grade of ***zero***.
3. You will have the number of absence days plus one to turn in missed assignments. Ask your classmates or the instructor about what you missed. If you have a rare, serious emergency that evening, talk to me before class the next day about being excused.
4. Inquiry (Lab) reports are due at the beginning of class on the due date. Late Inquiry (Lab) reports ***lose*** 15 points the first day and 10 points every subsequent day. ***Late reports are not accepted if date exceeds 10 days with respect to the due date.*** If you do not . If you have an excused absence on the day a lab is performed, you are still responsible for the lab and its report. All make-up labs are done after school and must be performed ***within two weeks*** of returning to school turn in the report, you will earn a ***zero***.
5. Projects will ***not*** be accepted late unless you have an excused absence on the day it is ***due***. Late projects are due on the day the student returns to school.
6. Tests missed during an excused or unexcused absences must be made up after school by appointment ***within two weeks*** of returning to school. Appointments must be made on the day you return. If missed test is not made up, you will earn a ***zero***.
7. ***If you have six (6) or more unexcused absence or tardiness, you will receive a letter grade of F for that semester.***

ACADEMIC SUCCESS

The best way to gain “peanut butter” knowledge (the kind that really sticks with you) is to learn now, when you first study the material, by applying daily good study habits. Stay focused in class and spend time thinking deeply about what you are learning. Review new concepts for several minutes after completing your homework. “Cramming” before a test is stressful, tiring, and ineffective at developing long-term knowledge. Seek help whenever you are having difficulty.

ACADEMIC AND PERSONAL INTEGRITY

All students are expected to uphold all parish, association, school, and classroom policies. Cheating in any way under any conditions will result in a grade of zero, parental contact, and an administrative report. Plagiarism of any kind on any work is cheating and will result in a grade of zero for the entire assignment. All projects and inquiry report analyses and conclusions must be solely your own work. At the teacher’s discretion, unsafe behavior in class may result in a zero on the assignment and a loss of class privileges. Complete, fully annotated stamp pages are a student responsibility and will be graded as is.

EXTRA HELP

Extra help will be given on Tuesday through Friday before school from 7:45 AM – 8:15 AM in my classroom and after school on Monday through Thursday from 4:00 PM – 5:30 PM in room 123. An appointment is not necessary but if you would like to make one, just let me know.

NOTES

Physics Course Outline 1st & 2nd (tentative)

Quarter	Dates	Unit	Title	Concepts and Skills Learned / Enhanced	Test Date
First Quarter	August 10, 2009	I	Intro to Scientific Thinking	Experimental design, Data Collection, Mathematical Modeling, Lab Report	Tuesday, August 25, 2009
	To	II	Velocity	Reference frame, position and trajectory, Particle Model, Dimensions and units	Thursday, September 10, 2009
	October 09, 2009	III	Acceleration	Concepts of acceleration, average vs instantaneous velocity, Uniformly Accelerating Particle model, Analysis of free fall	Friday, October 02, 2009
Second Quarter	October 12, 2009	IV	Free Particle Model I	Newton's 1st Law, Force concept, Force diagrams, Statics, Newton's 3rd Law	Thursday, October 29, 2009
	To	V	Free Particle Model II	Newton's 2nd law, CDP's dynamical properties, force diagrams and motion maps, Friction	Thursday, November 19, 2009
	December 18, 2009	VI	Two Dimensional Particle Model	Free Fall, Projectile Motion, Other combinations of particle models	Wednesday, December 9, 2009
	Final				Friday, December 11, 2009
Third Quarter	January 04, 2010	VII	Central Force Model	Uniform Circular Motion, Distinguish between centripetal and centrifugal force, Force Diagrams	Tuesday, January 26, 2010
	To	VIII	Energy	Energy interactions, Spring model, Work, Conservative vs non-conservative, Conservation of energy, Power	Tuesday, February 23, 2010
	March 12, 2010	IX	Impulsive Force Model	Momentum, Impulse, Conservation of Momentum	Thursday, March 11, 2010
Fourth Quarter	March 15, 2010	X	Waves	Amplitude, Wavelength, Frequency, Period, Wave Velocity, Reflection, Refraction, Wave Interference, Doppler Effect, Electromagnetic Spectrum	Friday, March 26, 2010
	To	XI	Electricity and Magnetism	Electric Charge, Electrostatics, Coulomb's Law, Electric Field, Electrical Resistance, Electric Power, Schematic Diagrams, Series and Parallel Circuits	Friday, April 16, 2010
	May 18, 2010	LEAP Testing		Monday, April 12, 2010 - Friday, April 16, 2010	
		XII	Electricity and Magnetism	Magnetic Fields, Magnetic Force, Relationship of Electricity and Magnetism	Friday, April 23, 2010
		XIII	Fundamental Forces	Gravitational Force, Electromagnetic Force, Strong Force, Weak Force	Friday, April 30, 2010
	Final				

Physics Course Outline 3rd (tentative)

Quarter	Dates	Unit	Title	Concepts and Skills Learned / Enhanced	Test Date
First Quarter	August 10, 2009	I	Intro to Scientific Thinking	Experimental design, Data Collection, Mathematical Modeling, Lab Report	Tuesday, August 25, 2009
	To	II	Velocity	Reference frame, position and trajectory, Particle Model, Dimensions and units	Thursday, September 10, 2009
	October 09, 2009	III	Acceleration	Concepts of acceleration, average vs instantaneous velocity, Uniformly Accelerating Particle model, Analysis of free fall	Friday, October 02, 2009
Second Quarter	October 12, 2009	IV	Free Particle Model I	Newton's 1st Law, Force concept, Force diagrams, Statics, Newton's 3rd Law	Thursday, October 29, 2009
	To	V	Free Particle Model II	Newton's 2nd law, CDP's dynamical properties, force diagrams and motion maps, Friction	Thursday, November 19, 2009
	December 18, 2009	VI	Two Dimensional Particle Model	Free Fall, Projectile Motion, Other combinations of particle models	Wednesday, December 9, 2009
	Final				Monday, December 14, 2009
Third Quarter	January 04, 2010	VII	Central Force Model	Uniform Circular Motion, Distinguish between centripetal and centrifugal force, Force Diagrams	Tuesday, January 26, 2010
	To	VIII	Energy	Energy interactions, Spring model, Work, Conservative vs non-conservative, Conservation of energy, Power	Tuesday, February 23, 2010
	March 12, 2010	IX	Impulsive Force Model	Momentum, Impulse, Conservation of Momentum	Thursday, March 11, 2010
Fourth Quarter	March 15, 2010	X	Waves	Amplitude, Wavelength, Frequency, Period, Wave Velocity, Reflection, Refraction, Wave Interference, Doppler Effect, Electromagnetic Spectrum	Friday, March 26, 2010
	To	XI	Electricity and Magnetism	Electric Charge, Electrostatics, Coulomb's Law, Electric Field, Electrical Resistance, Electric Power, Schematic Diagrams, Series and Parallel Circuits	Friday, April 16, 2010
	May 18, 2010	LEAP Testing		Monday, April 12, 2010 - Friday, April 16, 2010	
		XII	Electricity and Magnetism	Magnetic Fields, Magnetic Force, Relationship of Electricity and Magnetism	Friday, April 23, 2010
		XIII	Fundamental Forces	Gravitational Force, Electromagnetic Force, Strong Force, Weak Force	Friday, April 30, 2010
	Final				

Physics Course Outline 5th & 6th (tentative)

Quarter	Dates	Unit	Title	Concepts and Skills Learned / Enhanced	Test Date
First Quarter	August 10, 2009	I	Intro to Scientific Thinking	Experimental design, Data Collection, Mathematical Modeling, Lab Report	Tuesday, August 25, 2009
	To	II	Velocity	Reference frame, position and trajectory, Particle Model, Dimensions and units	Thursday, September 10, 2009
	October 09, 2009	III	Acceleration	Concepts of acceleration, average vs instantaneous velocity, Uniformly Accelerating Particle model, Analysis of free fall	Friday, October 02, 2009
Second Quarter	October 12, 2009	IV	Free Particle Model I	Newton's 1st Law, Force concept, Force diagrams, Statics, Newton's 3rd Law	Thursday, October 29, 2009
	To	V	Free Particle Model II	Newton's 2nd law, CDP's dynamical properties, force diagrams and motion maps, Friction	Thursday, November 19, 2009
	December 18, 2009	VI	Two Dimensional Particle Model	Free Fall, Projectile Motion, Other combinations of particle models	Wednesday, December 9, 2009
	Final				Tuesday, December 15, 2009
Third Quarter	January 04, 2010	VII	Central Force Model	Uniform Circular Motion, Distinguish between centripetal and centrifugal force, Force Diagrams	Tuesday, January 26, 2010
	To	VIII	Energy	Energy interactions, Spring model, Work, Conservative vs non-conservative, Conservation of energy, Power	Tuesday, February 23, 2010
	March 12, 2010	IX	Impulsive Force Model	Momentum, Impulse, Conservation of Momentum	Thursday, March 11, 2010
Fourth Quarter	March 15, 2010	X	Waves	Amplitude, Wavelength, Frequency, Period, Wave Velocity, Reflection, Refraction, Wave Interference, Doppler Effect, Electromagnetic Spectrum	Friday, March 26, 2010
	To	XI	Electricity and Magnetism	Electric Charge, Electrostatics, Coulomb's Law, Electric Field, Electrical Resistance, Electric Power, Schematic Diagrams, Series and Parallel Circuits	Friday, April 16, 2010
	May 18, 2010	LEAP Testing		Monday, April 12, 2010 - Friday, April 16, 2010	
		XII	Electricity and Magnetism	Magnetic Fields, Magnetic Force, Relationship of Electricity and Magnetism	Friday, April 23, 2010
		XIII	Fundamental Forces	Gravitational Force, Electromagnetic Force, Strong Force, Weak Force	Friday, April 30, 2010
	Final				

Physics Course Outline 7th (tentative)

Quarter	Dates	Unit	Title	Concepts and Skills Learned / Enhanced	Test Date
First Quarter	August 10, 2009	I	Intro to Scientific Thinking	Experimental design, Data Collection, Mathematical Modeling, Lab Report	Tuesday, August 25, 2009
	To	II	Velocity	Reference frame, position and trajectory, Particle Model, Dimensions and units	Thursday, September 10, 2009
	October 09, 2009	III	Acceleration	Concepts of acceleration, average vs instantaneous velocity, Uniformly Accelerating Particle model, Analysis of free fall	Friday, October 02, 2009
Second Quarter	October 12, 2009	IV	Free Particle Model I	Newton's 1st Law, Force concept, Force diagrams, Statics, Newton's 3rd Law	Thursday, October 29, 2009
	To	V	Free Particle Model II	Newton's 2nd law, CDP's dynamical properties, force diagrams and motion maps, Friction	Thursday, November 19, 2009
	December 18, 2009	VI	Two Dimensional Particle Model	Free Fall, Projectile Motion, Other combinations of particle models	Wednesday, December 9, 2009
	Final				Wednesday, December 16, 2009
Third Quarter	January 04, 2010	VII	Central Force Model	Uniform Circular Motion, Distinguish between centripetal and centrifugal force, Force Diagrams	Tuesday, January 26, 2010
	To	VIII	Energy	Energy interactions, Spring model, Work, Conservative vs non-conservative, Conservation of energy, Power	Tuesday, February 23, 2010
	March 12, 2010	IX	Impulsive Force Model	Momentum, Impulse, Conservation of Momentum	Thursday, March 11, 2010
Fourth Quarter	March 15, 2010	X	Waves	Amplitude, Wavelength, Frequency, Period, Wave Velocity, Reflection, Refraction, Wave Interference, Doppler Effect, Electromagnetic Spectrum	Friday, March 26, 2010
	To	XI	Electricity and Magnetism	Electric Charge, Electrostatics, Coulomb's Law, Electric Field, Electrical Resistance, Electric Power, Schematic Diagrams, Series and Parallel Circuits	Friday, April 16, 2010
	May 18, 2010	LEAP Testing		Monday, April 12, 2010 - Friday, April 16, 2010	
		XII	Electricity and Magnetism	Magnetic Fields, Magnetic Force, Relationship of Electricity and Magnetism	Friday, April 23, 2010
		XIII	Fundamental Forces	Gravitational Force, Electromagnetic Force, Strong Force, Weak Force	Friday, April 30, 2010
Final					