

**NORTH GARLAND HIGH / RICHALD COLLEGE
COURSE SYLLABUS FOR CNCEPTUAL PHYSICS 1405
FALL 2018**

Instructor: Alex Bevly

Email: ajbevly@garlandisd.net

Textbook: Conceptual Physics, 11th, 2010, Hewitt, ISBN: 0321568095,

Course Information:

Title	: Conceptual physics
Credits	: 4
Start Date	: 8/20/2018
End date	: 12/21/2018
Last date to drop to drop with a “W”	: 11/15/2018

Class meeting information

Lecture: M-F 9:10-10:45, 10:51-1:00, 1:06-2:40 – Room 305

Lab: TBA During Class – Room 305

Prerequisite: DREA 0093 or English as a Second Language (ESOL) 0044 or have met the Texas Success Initiative (TSI) standard in Reading.

Course Description: A survey of Physics for liberal arts and other non-science majors. Topics include mechanics, energy conservation, atomic nature of matter and thermodynamics. The history of scientific developments and their impact on daily life are discussed. Also included are laboratory experiments that emphasize a conceptual understanding of Physics

Course objective / Learning outcomes

The specific objectives are : To understand and apply a method and appropriate technology to the natural sciences; to recognize scientific and quantitative methods and the differences between them these approaches and other methods of inquiry; to communicate findings, analyses, and interpretation both orally and in writing; to recognize the influences and contribution of science to modern culture.

Core curriculum statement

- 1. Reading:* The ability to read and interpret a variety of printed materials – books, articles, and documents – above a 12th grade level.
- 2. Speaking:* Communicate orally in clear, coherent and persuasive language appropriate to purpose, occasion, and audience – above a 12th grade level.
- 3. Listening:* Analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, and reading – above a 12th grade level.
- 4. Critical thinking:* Think and analyze at a critical level.
- 5. Computer literacy:* Understand our technological society, use computer-based technology in communication, solving problems, and acquiring information

Course Outline: Subject to change at the discretion of the instructor to insure that all pertinent material is covered.

1. about Science
2. Linear motion
3. Vectors
4. Newton's laws
5. Newton's law of gravitation and gravity
6. Circular motion
7. Projectile Motion
8. Rotational motion
9. Energy
10. Work and power
11. Momentum and impulse

Students will practice, design, and implement critical thinking skills and lab investigations that will allow them to:

- Use scientific evidence to verify, revise, and/or reject particular viewpoints
- Make accurate measurements and understand the precision of the data
- Process and organize data into notebooks, tables, and graphs
- Attempt to find patterns of causal relationships by interpreting data
- Use a variety of scientific tools to reason, solve problems, and communicate results in lab reports

Basic Classroom expectations

Be in dress code

Be respectful

No food, drink or gum

No cell phone and any kind of electronic equipment in class

Classroom procedure: Every day agenda will be posted on the board. Follow the agenda for the entire period.

Beginning of class:

1. Turn in your homework at beginning of class
2. Sit in your assigned seat.
3. Bring materials and have them ready
4. Begin your bell work.

During the class

1. If you have a question regarding the curriculum, raise your hand before speaking.
2. Use the pencil sharpener during non-instructional time.
3. Stay on task, listen to directions and complete your assignments
4. Cooperate with your group and do not interrupt other students' learning
5. Respect all ideas given in class and do not criticize anybody's ideas or thoughts
6. No rest room passes during first and last 20 minutes of class

Consequences (IF YOU BREAK THE RULES)

Not necessarily in this order

1. Verbal Warning
2. Relocating Student
4. Contact Parent/Coach

5. Detention
6. Conference w/Parents and AP
7. Referral

Policies and Suggestions for Student Success:

1. Bell work will be done daily by the student at the start of each class the entire solution must be recorded in a composition notebook. Bell work will be taken up and graded at random. Therefore, the student should have it completed and with them every class period. **Physics notebooks / binders will be graded at least once per six weeks.** All handouts, class notes, homework, lab reports, quizzes, and tests are to be neatly organized (whole- punched) and included in the physics binder.

2. Exams, Homework and Quizzes: There are unit exams for each unit and one comprehensive final exam in this course. You will be given homework assignment list for each chapter. It is crucial that you complete and understand every assignment. I encourage you to work as groups on these assignments. Rather than collect homework, we will have many quizzes consisting of assigned problems and current topic questions at the start of most class periods.

3. Lab and Lab Reports: Lab Overview: (1) Labs are a major part of the course and are weighted accordingly. Everything the student does during the lab period goes toward their lab grade. Focus on the lab and completing the assignment properly. (2) The lab report should have your name, partners' names, date, title of this experiment, essay, data & calculation, and questions. (3) A scientific calculator, metric ruler, protractor, loose-leaf paper, and graph paper must be brought to each Lab session. (4) During the Lab, group of 2-4 students could work together in data collection and analysis. Lack of participation and collaboration will affect your grade. You will be assigned a lab group and will work in that group during labs. Lab groups will be periodically shuffled at the instructor's discretion but at least every six weeks. Everyone in your group is responsible for the equipment, which means if something is missing or broken, each of you is accountable. (5) Before leaving the Lab session, let the instructor check your data sheet. Return all apparatus to its appropriate location. Clean up the Lab when finished.

4. Attendance

Attendance is critical for participation in the classroom. Before the student can complete a lab successfully, they must know the background material. If a lab is missed, the student will probably not fully understand the concept nor will they be able to answer the follow-up, post-lab questions or lab based questions on tests. *You must be in attendance for 90% of the class time to receive credit for the class.*

5. Make-Up Work

- All daily work **MUST** be made up within **ONE** class day for each class day you are absent. **YOU** are responsible for getting notes, assignments, lab information, bell ringers, etc. Pick Up any missed handouts from the Make-up work folders in the room either before or after Class or in tutorials.
- **Labs MUST be made up during tutoring times or by appointment.**
- **Make-up tests and quizzes MUST be made up within two (2) class days during tutoring.** If you are absent the day *before* a scheduled test, you must take the test on the scheduled day Unless otherwise specified. **To receive the class curve for a given test/ quiz you must take The test at the prescribed time with the class. No exceptions.**
- **Quizzes:** Quizzes will be given throughout each unit. I strongly suggest studying for these quizzes. They will focus on critical vocabulary and concepts for each unit.
- If you will be out for known absences (field trips, tournaments, etc) it is highly recommended that You make up any work before you leave.
- No make-up work is given if you were present in class.

6. Extra Credit

Students can bring only any two of the lowest class work / home work grades for each six weeks by doing two extra credit assignments after completing the assignments that earned lowest grade .Extra credit assignments would be more rigorous compared to regular assignments

***Note Research Paper** – You may elect to significantly improve your lowest exam grade by submitting a research paper on a suitable topic covered in this course. Topics must be submitted for approval. The final paper must be submitted by the final exam date and must contain the following elements:

A title page with your name and date submitted

Main text composed of 6 – 8 typed, double-spaced pages with parenthetical documentation (MLA).

A works-cited reference list of a minimum of 4-6 entries in proper format (MLA) should be included.

NGHS Policies

School policies will be followed in all classes. This includes but is not limited to the following: dress Code, attendance, tardies, conduct, food/drinks, cell phones, MP3 players, and materials prohibited On school grounds. These can be reviewed at www.ngraid.org

Richland Policies:

For Richland Policies, please refer students to

<http://www.richlandcollege.edu/syllabusinfo/institutionPolicies.pdf>

Teacher Contact: The best way to contact me is through e-mail. If you need help after hours, email me. I will try to respond.

Grading Policy

A minimum grade of 70 is required to receive credit for the course. The average will be based on the following:

Unit Tests	= 40%
Quizzes	= 10%
Labs	= 25%
Classwork/Homework	= 15%
Binder	=10%

Scale: A = 100 to 90, **B** = 89 to 80, **C** = 79 to 70, **F** = 69 to 0

Tutorials: Tutorials will be offered in room 305 from 2:45 pm – 3:45 pm on Monday through Thursday. Tutorials are mandatory for all students who receive a failing grade on a test.

Supplies Needed

3-ring binder, min. 3-inch with 5 dividers for DC Physics section: (1 Class notes/work, 2 Homework, 3 Labs, 4 tests/quizzes, 5 Reference). **This binder must be cumulative. Do not remove or throw any material away at any time during the year. Because of the volume of the material, it is required that you have a dedicated 3-inch binder for physics.** AVID students must reserve a 3-inch section of their school binder for physics. In addition to the binder, the following supplies will be required by the second day of school:

Notebook Paper (No spiral paper accepted), Blue or black ink pen, #2 pencil and eraser (all data and computations will be done in pencil- **pen is NOT acceptable**), Red ink pen for corrections, Composition

Book (for Bell work). **No spiral notebook will be accepted.** 12- Inch ruler with metric graduations, 6-inch protractor.

Supplies Recommended

A scientific calculator will be required to do homework (have it by the end of 1st week for homework). A TI-83/ TI-84 calculator will be provided for daily **in-class use only**. All calculator will be individually numbered and assigned to each student in class. Each student is to use only their assigned calculator at all times. The **student is solely responsible** for return of their assigned calculator at the end of class. **You are expected to have all needed materials in class each day.**

Units of Instruction/Class Calendar:

Week of	Topics
Aug 20	About science
Aug 27	Linear motion
Sep 4	Vectors
Sep 10	Projectile motion
Sep 17	Newton's first law
Sep 24	Newton's 2 nd & 3 rd law
Oct 1	Newton's 2 nd & 3 rd laws
Oct 8	Gravity
Oct 16	Friction
Oct 22	Momentum & impulse
Oct 29	Work power
Nov 5	Energy
Nov 12	Conservation of energy
Nov 18	Thanksgiving Break
Nov 26	Circular motion
Dec 3	Rotational motion
Dec 10	Review
Dec 17	Review & Final exam

I anticipate that this will be a challenging but rewarding year for all of us. We have much to accomplish together, and I look forward to working with each of you! It is my goal to work with the student and the parents toward the student's best interest. Please feel free to contact me at any time to discuss how we can best accomplish this.

Parents, I request your help in insuring that your student will be in class every day to participate and to monitor his/her class performance. I want your student to excel this year, not just in physics but in all classes. Please feel free to contact me at ajbevly@garlandisd.net

Sincerely,

Mr. Bevly
DUAL CREDIT/ AP PHYSICS Teacher
NGHS

(Please turn this section to me)

I certify that I have read and understand the syllabus and classroom expectations for Mr. Bevly 2018-2019 Dual credit Physics class.

Student Name: _____

Period: _____

Student Signature

Date

Parent Signature

Date

Parent Contact Number

Best time to reach

Parent email address