**REGENTS & HONORS PHYSICS SYLLABUS**

**Ian Freedman, 2019-20**

**Course Description:** Physics is the study of the basic nature of the world around us. The major topics covered are Mechanics, Electricity and Magnetism, Light and Sound, and Modern Physics.

**Prerequisite in the WCSD handbook**

|  |  |  |
| --- | --- | --- |
| **Course** | **Math and regent exam score** | **Science and regents exam score** |
| Regents Physics | Geometry with 75 or better | Any Regents Sci with 75 or better |
| Honors Physics | Geometry with 85 or better | Any Regents Sci with 85 or better |

It is expected that you are at least currently enrolled in Algebra 2 and Trig. It’s much better if you have already taken them.

Students who did not take the Chemistry regents exam, or who scored less than scored less than a 70 on the Chemistry Regents Exam, should talk to me to decide whether you are prepared to be successful in this class.

**Contact Information:**

ian.freedman@wappingersschools.org

JJHS:845-897-6700

I’m often in rooms 271, 272 or 273 for extra help

**Required Materials:**

**A scientific calculator.** You do not need a graphing calculator, although you may use one if you want.

1-inch 3-Ring Binder (or smaller) for labs.

Binder/Notebook for class notes and handouts

Pencils (pens are optional, **but pencils are needed for all labs**)

**Restricted materials:**

Students may not to use laptops, tablets or cell phones in class, or other objects that cause distractions.

**ROLES AND RESPONSIBILTIES:**

* You are expected to **participate in class!**
* **Active engagement with daily learning activities.**
* You should **ask questions or solicit help**when you need.
* Physics is hard, so you may struggle at times. That’s not just OK; that’s a good thing! That’s how you’ll learn!
* You are expected to learn the material in class and through studying at home throughout the course. Cramming for tests will NOT work for this class.
* You are expected to do the class work and the homework, and to turn in assignments **on time**.

**CLASS BEHAVIOR AND EXPECTATIONS**

* Please be in your seat when the bell rings.
* Be prepared with all required supplies ready when class starts, **including assignments that are be due.**
* Please **act appropriately and respectfully** **AT ALL TIMES** in class. Please treat my class as a **professional environment**.
* Safety is the top priority! Please use common sense and practice safety at all times.
* **RESPECT** is a priority in the classroom. Students are expected to display respectful behavior to the teacher, their peers and themselves at all times. If you are ever unclear of whether an action may be disrespectful or culturally insensitive, it’s probably best to avoid that action or to ask me first.

**RESOURCES:** Thereare many resources to help you with this course.

* Me! I’m often available outside of regular classroom hours. Please don’t hesitate to ask for help or schedule an appointment if you can’t find me in my room/office!!!
* My course page will have files, links and assignments.
* Please work with other students, but do not copy work or let other students copy work. (It is OK to share lab data, but not to copy answers to other questions that require analysis or conclusions)
* Online videos and web sites

**Grading (tentative)**: Is broken down as follows.

**Each quarter:**

65% tests, quizzes and video checks

25% labs and assignments

10% participation, professionalism & preparation

If I assign projects, they may affect the grade weights mentioned above.

Note: not all assignments or tests will be weighed equally.

**Total Grade:**

Quarter 1: 20%

Quarter 2: 20%

Quarter 3: 20%

Quarter 4: 20%

Regents exam: 20%

**Homework/Videos:** I often require students to watch videos and take notes as homework. It is **VERY** important to do this!!! Students who do not watch my videos **ON TIME**, will fall behind in class. (For more info on this practice, look up “Flipped Classroom”).

**Exams & Quizzes.**

Exams dates and expectations will be made clear in class.

Please use study guides and do practice problems to prepare for tests!!!

You can find sample problems online in various locations, including 123physics.com

**Attendance & Missed Work:**

* Students are expected to be ON-TIME and to start class promptly!
* If you expect to miss a class, please contact me in advance if possible.
* Watching my videos and doing certain pages in the unit packets can help you make up for missed work.
* Students with an excused absence will be allowed to make up missed exams, labs and class work. However, it is **YOUR RESPONSIBILITY** to contact me to work out the details.
* Students who miss an exam without an excused absence or otherwise fail to make up a missed test will receive a 0 for that exam.
* Students who fail to turn in any assignment will receive a 0 for that assignment.

**Late Assignments:**

I expect assignments to be turned in on time!

Assignments, unless otherwise noted, are due at the beginning of class.

Late assignments will typically lose at least 30% credit. If they are more than a week late, they will lose 50% credit or more, at my discretion. Assignments turned in after the end of the quarter will not receive a score.

I reserve the right to assign any score, including a zero, to late assignments.

I recognize that students sometimes have emergencies or conflicts. If you expect to miss a class, or expect to need an extension on an assignment, please contact me (in advance, when possible) to arrange plans.

**Plagiarism/Copying (Academic Honesty):**

I recognize and appreciate that most studentsare honest and well intentioned. The work in this class can be challenging, and you are **strongly encouraged to speak with me if you ever feel temped to circumvent the rules or present work that is not your own.**

When there is a question of academic honesty it means that there is a question as to whether the assignment represents your ideas and your work.

You need to turn in individual, unique lab reports, projects and assignments. Any evidence of copying, lending, cutting and pasting or other plagiarism will be given an automatic zero and may result in disciplinary actions, including failure and/or other penalties as deemed appropriate by the teacher and/or administration.

Students who knowingly participate in plagiarism by lending their work or lab reports to other students to copy may be subject to the same penalties as mentioned above.

**Lab Requirements:**

Students are expected to complete a lab notebook for all labs and to complete several lab reports for the year. Specific lab report requirement and/or rubrics will be given during class.

**Students who do not complete the necessary lab requirements will not be allowed to take the Regents Exam and may fail the course.**

**Quiz: you will have a multiple-choice quiz on the material contained in the course syllabus!!!**

**Optional Reading: Course Description**



**Physics Laboratory Safety Contract**

1. Do not touch laboratory equipment until informed to do so by your teacher.
2. Use only materials and equipment authorized by your instructor.
3. Do not begin the lab until your instructor tells you to do so.
4. DO ONLY EXPERIMENTS THAT ARE ASSIGNED OR APPROVED BY YOUR TEACHER. UNAUTHORIZED EXPERIMENTS ARE PROHIBITED.
5. The physics office and storage rooms are off limits to students, except when specific approval is given by the teacher in charge.
6. Never work alone in the laboratory. A teacher must be present and aware of what you are doing.
7. Listen carefully for special instructions or warnings given by the teacher as part of the introduction to the lab exercise.
8. Please be quiet when the teacher is giving announcements.
9. When working with electrical circuits, be sure that the current is turned off before making any changes in the circuit, and get the teacher’s permission before starting the electrical flow. Your hands, body, and work area need to be dry when working with live circuits. Electricity must be turned off when finished.
10. Please note the location of the emergency shower, eye and face wash fountain, and fire extinguishers, and know how to use them.
11. Students should know the proper fire and safety drill procedures.
12. Student apparel should be appropriate for laboratory work.
13. Work areas should be kept clean and tidy.
14. Students must return equipment to its original placement after each class.
15. Students are financially responsible for lost or broken equipment that results from carelessness or misuse.
16. NEVER engage in horseplay or practical jokes. Do not misuse equipment. Remember, the laboratory is a place of serious work.
17. If you see other students engaging in dangerous, reckless or inappropriate behavior, contact the teacher IMMEDIATELY!
18. **Students need to always clean up after class.**

* **FAILURE TO FOLLOW THE ABOVE RULES WILL RESULT IN DISMISSAL OF THE STUDENT FROM THE LABORATORY.**

How to Be Successful in this Class

* Learning physics is difficult for some people. Even if you did well in past science classes, you might struggle. If so, please talk to me and follow my advice!!!
* Don’t fall behind. New topics usually require an understanding of previous material as well.
* If you do fall behind, catch up ASAP.
* If you miss class, make up the material ASAP.
* Watch the videos BEFORE class starts.
* Do the homework ON TIME.
* Don’t try to learn the material by cramming for a test. If you need to cram, it’s too late.
* Work and study in groups!
* Talk to me (after class/school or in class) ASAP if you’re starting to struggle.
* It’s not just problem solving and memorization. You NEED to understand concepts.
* Do all of your labs.
* Take good notes.
* Participate in class.
* Ask questions if you’re confused.

**Links to Good Regents Physics Review Sites**

* <http://www.regentsphysicsproblems.com/index.html?fbclid=IwAR14m5q2WFXYRLRdy8S34pp72jyf1bPyW0fyJnyfDQQuLWApgO1n_l5D-b8>
* www.123physics.com/ (for past regents problems, sorted by topic. Moderate annual fee required.)
* www.stmary.ws/highschool/physics/ (for concepts)
* www.stmary.ws/highschool/physics/home/review/review\_all.htm (for more review materials)
* [www.physicsclassroom.com/Class/](http://www.physicsclassroom.com/Class/) (for concepts, simulations and problems)
* http://phet.colorado.edu/ (for simulations)
* Reference table: www.p12.nysed.gov/assessment/reftable/physics-rt/physics06tbl.pdf
* Old Regents Exams: www.nysedregents.org/physics/
* My Video Channel on YouTube: www.youtube.com/user/iansfreedman/videos

Signing up for REMIND Notifications

ALL students are **REQUIRED** to sign up for. There are 3 ways to do this: (1) Go to [www.remind.com](http://www.remind.com) and enter the code below, OR (2) Text the code to 81010, OR, (3) Download the Remind app and enter the code.

**STUDENTS:** Enter the class code: **@free19-6** (for period 6 students)

**@free19-8** (for period 8 students)

**PARENTS:** Enter the class code: **@free19-6p** (for period 6 students)

**@free19-8p** (for period 8 students)

Parent/Guardian Handout & Student Information Forms

Dear Parents/Guardians:

I’m so excited to help your student learn physics! In this course, we’ll be studying the nature of the universe, from the motion of objects to the wild and amazing behavior of black holes, and much more. Students will engage in a lot of hands-on learning and lab work, and they will be expected to participate regularly in class activities.

Because physics requires a unique set of thinking and problem-solving skills, it can be challenging for many students, including students who have done well in other science classes. I encourage you to talk regularly with your student about his or her progress. If you sense struggling, please encourage him or her to reach out to me for extra help, or contact me directly with questions, concerns or requests. My contact information is provided below.

Similarly, there will be times when I want to contact you. For that reason, I ask that you do the following:

1. Please help your student fill out the information form I attached.
2. Please ensure that the school district has your accurate contact information, including email addresses and phone numbers. I will send out occasional emails using the contact information stored in ParentPortal.
3. Please sign up for Remind (See below), which I often use to send out alerts and announcements.
4. I also post announcements on a **class Web page**, which you can find on John Jay’s Web site, through [www.wappingersschools.org](http://www.wappingersschools.org).

Thanks for your support this year. If you ever have questions, the best way to contact me is usually through email or through the Remind app or Remind.com. I’m also happy to set up meetings by appointment.

Signing up for REMIND Notifications

* All students are **REQUIRED** to sign up to **Remind** ([www.remind.com](http://www.remind.com)).
* Parents are **STRONGLY ENCOURAGED** to sign up as well.
* Signing up takes 1 minute, and your contact information remains anonymous to everyone in the class.
* You may message me directly through the Remind app or Remind.com. This is often the fastest way to reach out to me with brief questions or comments.
* Enrollment information is on the back side of this page.

There are three ways to sign up for Remind:

1. Go to [www.remind.com](http://www.remind.com) and enter the code below, OR
2. Text the code below to 81010, OR
3. Download the Remind app and enter the code below. (Note: you do not need to download the app if you use either of the methods above)

\*Note: if you text 81010 you will initially receive text messages. If you use the web site or the app, you can use alternative alert methods, such as email or phone notifications.

**STUDENTS:** Enter the class code: **@free19-6** (for period 6 students)

**@free19-8** (for period 8 students)

**PARENTS:** Enter the class code: **@free19-6p** (for period 6 students)

**@free19-8p** (for period 8 students)

Sincerely,

Ian Freedman

John Jay Senior HS, Physics

ian.freedman@wcsdny.org

Students may also contact me with the Remind app.

**Students & Parent/Guardian Information Form**

------ Read, sign, and date, and return THIS PAGE to Mr. Freedman -------

**Student Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**STUDENTS -- initial EACH ITEM below to acknowledge the following:**

read the course syllabus

signed the Laboratory Requirements (on the reverse side of this form)

abide by the course plagiarism policy

abide by the Laboratory Safety Contract

have signed up for Remind

agree to abide by all class rules and regulations, and to ask questions if you’re ever uncertain about any policies or procedures

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PARENT/GUARDIANS initial below to acknowledge the following:**

read the Parent/Guardian HANDOUT

signed the Laboratory Requirements (on the reverse side of this form)

enrolled in Remind in order to receive parent notification (optional but strongly recommended)

checked to be sure that the district has the correct up-to-date contact information

student has shown the syllabus to you (optional reading, but I encourage you to look it over)

**Parent/Guardian Name(s):**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Parent/Guardian Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Phone #(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian e-mail address(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Additional comments or questions?**