



# AP Physics C

Course Expectations  
*2023-2024*

## Contact Information

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**Course Website:** [AP Physics C Website!](#)

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## About the Teacher

Hi! I'm Mr. DuBrow and I have been teaching at ETHS since 2002. This year I am teaching AP Physics C, 2 Chem-Phys H, and 3 Chem-Phys AP. I studied astronomy and physics in college and graduated from the University of Illinois in 2002. I've also earned Master's degrees in Science Education and Curriculum & Instruction. I feel very strongly that it's important to study physics because this is a topic that we see come up all the time in our daily lives. My goal as a teacher is to help develop your skills in problem solving and using the laws of



physics to figure out different situations, but I also hope to instill an appreciation for how physics affects us everyday.

When I'm not teaching, I like to hang out with my family and relax by reading books (science fiction), doing jigsaw puzzles and playing board games & classic video games, baking, and grilling. This past summer I worked on some house projects, hung out with my family, and learned a few new games. I also like being outdoors, including biking, camping, and hiking. I recently started a Physics Instagram to highlight cool ways Physics shows up in our everyday experiences - don't forget to follow! (@mrdubrowlovesphysics)

## Course Overview

This course is comparable to a first-year, college-level, laboratory course that covers all topics already introduced in your previous physics class plus goes into great depth in the areas of mechanics, electricity, and magnetism. While this course reviews calculus concepts as applied to physics, a basic understanding of calculus is expected. The major units of study will be

[1st Semester - Mechanics]:

- Kinematics (motion in 1d, 2d, and 3d, as well as circular motion),
- Newton's Laws of Motion,
- Work, energy, and power,
- Systems of particles and linear momentum,
- Rotation
- Oscillations
- Gravitation

[2nd Semester - Electricity & Magnetism]:

- Electrostatics
- Conductors, Capacitors, & Dielectrics
- Electric Circuits
- Magnetic Fields
- Electromagnetism

This course will strive to cover in detail the topics that will appear on the AP Physics C Exam in May 2023, as well as other topics of interest to students. After the AP Exam, students will complete a final project on a topic of their choice with teacher approval.

## Schedule

We will meet every day during blocks 5 and 6, as well on Mondays for both blocks. An image of the ETHS schedule for the 2022-23 school year is included below. In the event that the daily schedule changes, please click [here](#) to access the [ETHS Daily Class Schedule](#). This document will be updated with the most up-to-date information on schedules as ETHS continues to adapt to the needs of teachers, students, and the community during the pandemic.



# ETHS Bell Schedule

| Wildkit Mondays                                  | Orange Days (T/Th)                       | Blue Days (W/F)                          | Early Dismissal                               | Late Start                                    |
|--|--|--|---|---|
| Early Bird<br>7:10-7:50am                        | Early Bird<br>7:10-7:50am                | Early Bird<br>7:10-7:50am                | Early Bird<br>7:10-7:50am                     | Early Bird<br>-none-                          |
| AM Support<br>8:00-8:25am                        | AM Support<br>8:00-8:25am                | AM Support<br>8:00-8:25am                | AM Support<br>8:00-8:25am                     | AM Support<br>-none-                          |
| Block 1<br>8:30-9:03am                           | Block 1<br>8:30-9:55am                   | Block 2<br>8:30-9:55am                   | Block 1 or 2<br>8:30-9:40am                   | Block 1 or 2<br>9:35-10:45am                  |
| Block 2<br>9:08-9:41am                           |  |  |   |   |
| Block 3<br>9:46-10:19am                          | Block 3<br>10:05-11:30am                 | Block 4<br>10:05-11:30am                 | Block 3 or 4<br>9:50-11:00am                  | Block 3 or 4<br>10:55-12:05pm                 |
| Block 4<br>10:24-10:57am                         |  |  |   |   |
| Lunch 1<br>11:02-11:35                           | Lunch 1<br>11:40-12:20                   | Lunch 1<br>11:40-12:20                   | Lunch 1<br>11:10-11:50                        | Lunch 1<br>12:15-12:55                        |
| Block 5<br>11:02-11:35                           | Block 5<br>11:40-1:05                    | Block 6<br>11:40-1:05                    | Block 5 or 6<br>11:10-12:20                   | Block 5 or 6<br>12:15-1:25                    |
| Block 5<br>11:40-12:13                           |  |  |   |   |
| Lunch 2<br>11:40-12:13                           | Block 5<br>12:30-1:55                    | Block 6<br>12:30-1:55                    | Block 5 or 6<br>12:00-1:10                    | Block 5 or 6<br>1:05-2:15                     |
| Block 6<br>12:18-12:51pm                         | Block 7/<br>Announcements<br>2:05-3:35pm | Block 8/<br>Announcements<br>2:05-3:35pm | Block 7 or 8/<br>Announcements<br>1:20-2:30pm | Block 7 or 8/<br>Announcements<br>2:25-3:35pm |
| Block 7<br>12:56-1:29pm                          |  |  |   |   |
| Block 8<br>1:34-2:07pm                           |  |  |   |   |
| Staff Professional<br>Development<br>2:20-4:00pm |  |  | Assembly<br>2:40pm                            |   |
| Student<br>Dismissal<br>2:07pm                   | Student<br>Dismissal<br>3:35pm           | Student<br>Dismissal<br>3:35pm           | Student<br>Dismissal<br>2:30pm                | Student<br>Dismissal<br>3:35pm                |

My office hours are everyday during AM support (8:00-8:30) and by appointment (email me).

# Materials

You do not need many special supplies for my class, but be sure you have the items below on hand throughout the year.

- Notebook (preferably grid paper)
- Pencils
- Calculator (does NOT need to be a graphing calculator, a [scientific one like this](#) is excellent and easy to use and can be purchased at most major retailers)
- Chromebook

**Books/Book Distribution Center:** Students are responsible for returning all textbooks to the BDC by the end of the current school year. ETHS teachers will not collect or return any textbooks.

## Accessing Digital Course Content

### Google Classroom

For the 2023-2024 school year, all ETHS teachers will use Google Classroom as their primary method for delivering digital course materials and instructions. For students to join the Google Classroom for this course, please visit [classroom.google.com](https://classroom.google.com) and click on the + sign in the top right corner. Then select “Join.” Use the code listed below to gain entry to the course.

**Google Classroom Code**

**bzhquhz**

### Google Classroom Guardian Summaries

Google Classroom allows guardians to receive regular updates about student’s activities and progress via email. If interested, guardians can reach out to the teacher directly at [dubrowd@eths202.org](mailto:dubrowd@eths202.org) and request to be invited to participate. [For more information about Google Classroom Guardian Summaries, please click here.](#)

### Lesson Agenda

I will use Google Classroom to post assignments grouped by unit. Within each unit we will work through a variety of assignments that will include labs, problem sets, discussions (both on video and text-based), and formal assessments/projects. I will ALWAYS post any work that must be

turned in as an assignment in Google Classroom so that it shows up on your Google Classroom “To-Do list” and calendar.

I will primarily organize our class with a unit-by-unit calendar as well as a daily agenda. I will have an overarching calendar document that outlines the entire unit from the beginning so you know what to expect, as well as a more detailed daily agenda on Google Slides.

Throughout the course, I will continually update the agenda with information about plans for each day. This link will remain the same throughout the school year and will also be posted on Google Classroom for easy access. Course Website

Agenda for [AP Physics C Agenda DuBrow Fall 2023-24](#)

**Course Website:** [Click here for the AP Physics C website!](#)

## Additional Digital Content Information & Resources

**Chrome Extensions:** Please add the following extensions to your Google Chrome browser on your school Chromebook. You can add each extension by going to the URL linked below and then clicking the blue “Add to Chrome” button at the top right of the screen. IF you already have the app, it will say “Launch App,” so you’re already good to go!

- [Vernier Graphical Analysis](#) (graphing software for labs)

### **Mastering Physics:**

I will be posting login information on Google Classroom for Mastering Physics, which is where you will access your digital textbook as well as problem sets and assignments throughout the year.

### **Pivot Interactives:**

We will use this website to design and analyze lab data for those labs that we cannot perform in the classroom. The class join code is: b62c487e (or just [click this Link to Join Pivot](#))

### **AP Classroom:**

We will be using this website frequently for extra practice problems that will help you develop your skills. Please visit this website: <https://myap.collegeboard.org/> and use the course code:

**AALEW6** for Mechanics and **4QRGY6** for Electricity and Magnetism. While we won’t need the E&M course just yet, it’s useful to sign up for both at the start of the year.

### **Google Classroom & Google Drive Apps:**

I highly recommend downloading the Google Classroom and Google Drive Apps on your smartphone to simplify the process of taking pictures of your work and uploading them to a Google Classroom Assignment submission. With the classroom app, when you go to submit an

assignment on your phone, you can add images directly to the assignment submission. With the Drive app, you can easily upload photos from your phone camera to your Google Drive using the “share” icon and then selecting your drive & desired folder location.

### **Physics Classroom:**

I will include links to this website elsewhere as well, but [Physics Classroom](#) is an excellent resource to review and learn about physics content.

## **Class Procedures**

### **Cell Phone Use**

Cell phones are not to be used in academic spaces (classrooms/labs) without permission from the teacher or school staff. Use of your cell phone/electronic device, (e.g., cameras, tablets, music players, Chromebooks, laptops, etc.) during school hours is a privilege. Adherence to these guidelines is essential to maintaining an academic environment and the privilege. Abuse of this privilege will result in consequences including but not limited to restorative action, extended detention, parent/guardian involvement, suspension or termination of this privilege. (pg. 35 [ETHS Pilot](#))

### **Participation & Discussions**

The three “R’s” apply to our classroom:

**Respect for Self**

**Respect for Others**

**Respect for the Community**

We will regularly have discussions during class about physics problems and concepts. These will take place both in small group and full class settings. Participation can take many forms: actively listening and following the conversation your classmates are having, asking thoughtful questions, explaining your ideas, or responding to your classmates’ questions or comments. None of these ways of participating is necessarily better than another, but you should try to participate during class in a variety of ways. If you are typically a very vocal participant, be mindful of your airtime and make sure that you are allowing others a chance to speak as well. If you typically prefer to listen to others during discussions, push yourself to make a few vocal comments each class or week.

We will also regularly complete labs in small groups during class. During these times, everyone is expected to contribute to the group’s objectives and actively engage in the learning process.

**We will adhere to the current ETHS guidelines for mask wearing, which**

**may change due to the status of the pandemic at the time.**

**You are welcome to take breaks at any time to go to the bathroom, step into the hallway to drink water, or have a snack. No food or drink is allowed in the classroom.**

## **Grading**

Grading is simple. Everything we do will have some number of points possible, and we'll look at the total percentage earned to assign a letter grade at the end of a marking period.

| <b>Grading Scale:</b> |              |
|-----------------------|--------------|
| A                     | 93-100       |
| A-                    | 90-92        |
| B+                    | 87-89        |
| B                     | 83-86        |
| B-                    | 80-82        |
| C+                    | 77-79        |
| C                     | 73-76        |
| C-                    | 70-72        |
| D+                    | 67-69        |
| D                     | 60-66        |
| F                     | 59 and below |

## **Semester Grade Calculations**

Grades will average the percentages earned each quarter. For example, Q1 78% + Q2 82% would be an 80% (B-) for the semester. The lowest percentage for a quarter grade of F will be 50% for the quarter. The highest percentage for a quarter grade of A will be 100% for the quarter.

## **Make Up Work Policy**

For any class work and any homework assigned/due during excused or unexcused absences, students will have twice the number of missed school days to turn in assignments for full credit. This applies to assignments, assessments, and projects with previously announced deadlines. For more information, [please see the student pilot handbook on the ETHS website.](#)

## **Late Work Policy**

Missing/late work will be assigned a "z" in the HAC gradebook until the assignment is received. There is a penalty of 10% per day on late assignments. If an assignment has a "0" in it, the points cannot be made up.



## Assessment

Throughout our time together, I will be assessing your learning frequently, sometimes informally (doesn't count for a grade), and other times formally (when it DOES count for a grade). The purpose of assessment is for me to get a glimpse at your level of mastery of the content goals for a particular unit or topic. There will typically be 2-4 units per quarter, with a comprehensive unit assessment at the end of each unit.

## Retakes

Retakes will be at teacher discretion based on specific circumstances which are unique to each student and assessment. Everyone can have a bad day, week, unit, etc. However, patterns of behavior that result in consistent need for retakes are a reason for further conversation with the student and guardians.

## Attendance

When attending classes, students are expected to be in class at the beginning of the period by the time the bell rings. Teachers will take attendance and record tardies. For more information about attendance policies and procedures, [please see the school website here.](#)

- **Passing periods are five (5) minutes on Wildkit schedule days and ten (10) minutes on Blue/Orange days.** – A warning bell will ring at one (1) minute before the start of each block, and a final tardy bell will ring when the passing period is over. **Students must be in the classroom when the final tardy bell rings to be considered on time.**
- **Students who arrive after the tardy bell rings will be marked Tardy or Extreme Tardy by teachers.**
- **Tardy** = arriving 1-9 minutes late for a block. Tardy students will be assigned a Tardy Detention. ETHS offers many opportunities for students to clear Tardy Detentions via accessing academic supports like AM Support, Academic Study Center, Wildkit Academy, and more. See [ETHS Tardy Tracker Info for Students](#) for more details.
- **Extreme Tardy** = 10 minutes or more late for a block. An Extreme Tardy counts toward a status of No Credit (NC) for a block for the semester.

## Wellbeing & Support



# Student Wellbeing

I know that this is a difficult time for everyone. I am here to help provide whatever resources I can to help you be safe, healthy, and happy, but I can only do that if you communicate with me or another ETHS adult so we can connect you with assistance. Below are some school resources to help you. Please reach out to me with any additional concerns so I can provide further resources as needed.

## **Wellbeing during Covid-19**

[Navigation the Emotional Landscape of COVID-19](#)

## **Systems of Supports**

[Academic Supports on the ETHS website](#)

# Chromebook & Tech Support

ETHS is committed to ensuring all students have access to the technology needed for their learning. This includes a working Chromebook and Internet access. Students can request technical support through the ChromeZone ([chromesupport@eths202.org](mailto:chromesupport@eths202.org), 847-424-7357) should they need any assistance with their school-issued Chromebook and/or access to the Internet via the District's mobile hotspot program.

# Additional Information

For additional information not covered in these expectations, please review the [Student Pilot Handbook](#) on the ETHS website.

# Department Information

Please review the lab safety expectations below. You will be expected to follow these expectations at all times in class.

[Flinn Student Lab Safety in English](#)

[Flinn Student Lab Safety in Spanish](#)

