

Physics 121 H Syllabus

Fall, 2021

Bellevue College

Instructor: Trevor P. Gamble, Ph.D

E-mail: trevor.gamble@bellevuecollege.edu

Office Phone: 425 564 3351

Office location: B 223 D

Office Hours: Wednesday, 10:30 am – 5:30 pm, or anytime! Send an email.

▪ Course Outcomes

Welcome!

The goal will be to maintain, digitally, the usual level of instruction and difficulty (of the puzzles/problems assigned), while keeping low the stress and total energy/time you will need to expend. If you work with me, I will work with you. If you check your email every 24 – 48 hours, and don't get behind on the studying, you should have no trouble with this class (just be sure to ask questions to your classmates or myself if you become confused or frustrated!).

I can't make many more promises - I just want you to know that's where we're starting.

▪ How Outcomes Will be Met

Homework

Homework is an effective way to develop your problem-solving skills and understanding. There will be few homework problems, and fewer mandatory homework problems – just make sure you understand the concepts, and please be sure to ask questions if not!

There will be weekly or bi-weekly homework sets. We will use a free homework program/server called MyOpenMath. How to find problems, and how to create an account, will be listed on Canvas, or sent out through email during the first week of class. Feel free to work together (it cuts down on the work, *while also not* impacting learning, due to the necessary group/friend discussions and time spent to make sure that they or you understand), just don't use websites like chegg.com! I do not mind answering questions either – just don't pay a tutor/website to solve the problems for you. If you are using the bench press (to use an analogy), and someone give you a little help, that's normal! On the other hand, paying someone to lift the weights (while you lay under them) does nothing.

Labs

This part of the class is the most perturbed. The lab instruction will involve the use of interactive programs/applets, videos, and (a few weeks after the quarter starts) a lab kit. The kit will allow you to construct apparatus for the experiments, and it will include a few standard tools. You may avoid the small rental fee by applying for CARES funding [here](#). They may run out of funding.

Because the labs are *not* being done in person, know that that there will be some troubleshooting (and with that, frustrations) – so please try to roll with the punches. Also, you may be asked to do what Einstein called “[thought experiments](#)”, where you will create/design a lab yourself, and predict the results, based on currently known principles.

In-Class Assignments

None this quarter. With that said, feel free to work with each other on the homework! Sometimes they only need a few pieces of information to finish the problem (or to understand a concept). The idea is that eventually, if you help/tutor correctly, they will become closer to being a partner (possibly with different talents, but that’s okay!).

Exams

Typically there will be 3 “Checkpoint” exams, followed by the final exam. Exams are cumulative, though they mostly focus on material introduced since the previous exam. Likely, they will be take home (with several days to complete), but I may switch to Canvas exams (with Zoom, so be sure to have a working webcam) later in the quarter, if needed (or requested, and agreed upon).

Exams may not be taken late, except for extraordinary circumstances, which will be determined by the instructor on a case-by-case basis, assuming you sent a letter beforehand (travel, etc.). In rare cases, a student who shows great improvement on the final will be allowed to use that score to replace a checkpoint from earlier in the quarter. Think of it as a mulligan 😊

▪ Grading

Your grade for the class will be based on the following:

Homework	12.5%
Lab	12.5%
Quiz	25%
Checkpoint	25%
Final Exam	25%

Your letter grade will be based on the following table and a professional evaluation of your progress in the course.

Percent	Letter	Decimal	Percent	Letter	Decimal
91-100	A	4.00	69 - 74.4	C+	2.33
87.5 - 90.9	A-	3.67	64 – 68.9	C	2.00

85 – 87.4	B+	3.33	59 - 63.9	C-	1.67
77 - 84.9	B	3.00	56 - 58.9	D+	1.33
74.5 - 76.9	B-	2.67	50 - 55.9	D	1.00

The link to the College Grading Policy is located on page 10 of the Course Catalog: [Grading Policy](#)

▪ Books and Materials

To save money, you may buy a used copy of the text below, or use an older algebra-based physics book, from a different author. Ask me if you are unsure about the text you choose.

TEXTS:

- *Physics, 5th edition, Volume 1*, by Resnick, Halliday, and Krane
- OR any calculus-based college textbook (used or new)
- [This free, online textbook \(OpenStax\), which is equivalent](#)
- [These links!](#)
- [This very useful website](#)
- [The lab supplement](#) (for uncertainty propagation calculations, and a few other items)

▪ Final Exam Schedule

Thursday, December 16th, 1:30 – 3:20 pm
(the final exam will likely be take-home, with several days to complete)

▪ Academic Calendar

The Bellevue College Academic Calendar is separated into two calendars. They provide information about holidays, closures and important enrollment dates such as the finals schedule.

- [Enrollment Calendar](#) On this calendar you will find admissions and registration dates and important dates for withdrawing and receiving tuition refunds.
- [College Calendar](#) This calendar gives you the year at a glance and includes college holidays, scheduled closures, quarter end and start dates, and final exam dates.

▪ Calendar

(very, very subject to change)

Week	Exams
1	
2	
3	Checkpoint 1
4	
5	
6	
7	Checkpoint 2
8	
9	
10	Checkpoint 3
11	
12	Final Exam: <i>Thursday, December 16th</i>

▪ **Additional Information**

Here are some useful resources:

[Science Study Center](#)

[Bellevue Physics Website](#)

Departmental Statement On COVID-19

The Physics Department began conversations concerning the restrictions to teaching on campus and started developing strategies for online teaching in your course(s) this quarter. We are utilizing a variety of technologies and will be in constant collaboration to help ensure that your success in the course and subsequent courses is impacted as little as possible. To achieve this we are pooling some resources and our experience with technology with each other to leave time to develop high quality instruction across the entire course. The goal is to continue to meet, under these new conditions, the departmental learning objectives of your course. Because of this, you may find that some resources for your class are contributed by other faculty, such as online examples, lecture/demos videos, lab videos, etc.

Instructors across the department have agreed that in order to achieve the laboratory outcomes associated with the “lab credit” of the course, a certain amount of hands-on experiences will be required. Providing these experiences without students coming to campus is the challenge our department faculty face. Although some labs traditionally geared towards conceptual development of key physics ideas may be reformatted so that you can use simulations and videos online, some of your lab experiences will involve first-hand observations and analysis, with the provided lab kits. Faculty are working together to make the appropriate adjustments so that the lab learning objectives are met across all physics classes at BC.

Classroom Learning Atmosphere

▪ **Instructor’s Expectation**

Many students find physics to be a challenging and demanding class. Based on national research, it’s recommended you spend 2-3 hours outside of class for each hour in class. Preparing for class and doing readings ahead of time will increase the efficiency of your learning. Because of the demands of this course, it is very important to not let yourself fall behind and attendance is important. If you are having trouble with a particular topic, make sure to get help. There are many great learning resources on the BC campus- your classmates, the Science Study Center, and instructor office hours.

▪ **Affirmation of Inclusion**

Bellevue College is committed to maintaining an environment in which every member of the campus community feels welcome to participate in the life of the college, free from harassment and discrimination. We value our different backgrounds at Bellevue College, and students, faculty, staff members, and administrators are to treat one another with dignity and respect.

Religious Holidays

Students who expect to miss classes, examinations, or any other assignments as a consequence of their religious observance should be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious holidays on which they will be absent, preferably at the beginning of the term. Students who are absent on days of examinations or class assignments should be offered an opportunity to make up the work without penalty (if they have previously arranged to be absent), unless it can be demonstrated that a makeup opportunity would constitute an unreasonable burden on a member of the faculty. Should disagreement arise over what constitutes an unreasonable burden or any element of this policy, parties involved should consult the department chair, or Dean.

College Anti-Discrimination Statement

Bellevue College does not discriminate on the basis of race or ethnicity; color; creed; national origin; sex; marital status; sexual orientation; age; religion; genetic information; the presence of any sensory, mental, or physical disability; gender identity or veteran status in educational programs and activities which it operates.

Confidentiality and Mandatory Reporting

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. However, I am required to share with the Title IX Coordinator any and all information regarding sexual assault and other forms of sexual misconduct (e.g. dating violence, domestic violence, stalking) that may have occurred on campus or that impacts someone on campus. Students may speak to someone confidentially by contacting the BC Counseling Center at (425) 564-2212. The Title IX Office can be contacted at 425-564-2441 and more information can be found at www.bellevuecollege.edu/titleix/.

For further information and contacts, please consult [College Anti-Discrimination Statements](#).

▪ Division Statements

Science Division Policy on Cheating: You, the student, are expected to conduct yourself with integrity. If you cheat*, or aid someone else in cheating, you violate a trust. If you cheat, the following actions will be taken:

1. You will receive a grade of "0" on the work (exam, assignment, lab, quiz, etc.) where the cheating occurred. This grade cannot be dropped.
2. A report of the incident will be sent to the Dean of Student Success. He /she may file the report in your permanent record or take further disciplinary action such as suspension or expulsion from the college.

If you feel you have been unfairly accused of cheating, you may appeal. (For a description of due process, see WAC 132H-120 and/or the Student Handbook.)

**Cheating includes, but is not limited to, copying answers on tests or assignments, glancing at nearby test papers, swapping papers, stealing, plagiarizing, lying, use of electronic information storage or communication devices to store or share answers and illicitly giving or receiving help on exams or assignments.*

Information about Bellevue College's copyright guidelines can be found at: [College Copyright Policy](#)
This link provides a good, short summary of how to avoid plagiarism: [Avoiding Plagiarism](#)

▪ Student Code of Conduct and Academic Integrity

Any act of academic dishonesty, including cheating, plagiarism (using the ideas or words of another as one's own without crediting the source), and fabrication and inappropriate/disruptive classroom behavior are violations of the Student Code of Conduct at Bellevue College. Examples of unacceptable behavior include, but are not limited to, talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones/pagers to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Code of Conduct to the Dean of Student Success for investigation. Specific student rights, responsibilities, and appeal procedures are listed in the Student Code of Conduct at: [Student Code](#)

Important Links

▪ Bellevue College E-mail and access to MyBC

All students registered for classes at Bellevue College are entitled to a network and e-mail account. Your student network account can be used to access your student e-mail, log in to computers in labs and classrooms, connect to the BC wireless network and log in to *MyBC*. To create your account, go to: [Create Email](#)

BC offers a wide variety of computer and learning labs to enhance learning and student success. Find current campus locations for all student labs by visiting the [Technology Help Desk](#)

▪ Disability Resource Center (DRC)

The Disability Resource Center serves students with a wide array of learning challenges and disabilities. If you are a student who has a disability or learning challenge for which you have documentation or have seen someone for treatment and if you feel you may need accommodations in order to be successful in college, please contact us as soon as possible.

If you are a person who requires assistance in case of an emergency situation, such as a fire, earthquake, etc, please meet with your individual instructors to develop a safety plan within the first week of the quarter.

If you are a student with a documented autism spectrum disorder, there is an additional access program available to you. Contact [Autism Spectrum Navigators](#) Email and phone number is on the web page. ASN is located in the Library Media Center in D125.

The DRC office is located in B132 or you can call our reception desk at 425.564.2498. Deaf students can reach us by Skype: the address is **DRCatBC** (NOTE: There is no @ sign...it is actually **DRCatBC**). Please visit our website at [Disability Resource Center](#) for application information into our program and other helpful links.

Accessibility

The online elements of this course are designed to be welcoming to, accessible to, and usable by everyone, including students who are English-language learners, have a variety of learning styles, have disabilities, or are new to online learning. Be sure to let me know immediately if you encounter a required element or resource in the course that is not accessible to you. Also, let me know of changes I can make to the course so that it is more welcoming to, accessible to, or usable by students who take this course in the future.

▪ Public Safety

Public Safety and Emergencies

Public Safety is located in the K building and can be reached at **425-564-2400** (easy to remember because it's the only office on campus open 24 hours a day—2400). Among other things, Public Safety serves as our Parking Permits, Lost and Found, and Emergency Notification center. Please ensure you are signed up to receive alerts through our campus alerting system by registering at [RAVE Alert Registration](#)

If you work late and are uneasy about going to your car, Public Safety will escort you to your vehicle. To coordinate this, please phone ahead and let Public Safety know when and where you will need an escort.

Please familiarize yourself with the emergency postings by the door of every classroom and know where to go in the event of an evacuation. Your instructor will be asked if anyone might still be in the building, so check in before you do anything else. Emergency responders will search for anyone unaccounted for.

If a major emergency occurs, please follow these three rules:

- 1) Take directions from those in charge of the response** -We all need to be working together.
- 2) Do not get in your car and leave campus (unless directed to)** - Doing so will clog streets and prevent emergency vehicles from entering the scene. Instead, follow directions from those in charge.
- 3) In an emergency, call 911 first, then Public Safety.**

Please do not hesitate to call Public Safety if you have safety questions or concerns at any time. You may also visit the [Public Safety](#) web page for answers to your questions.