

## Basic Course Information

Semester:	<b>Spring 2026</b>	Instructor Name:	<b>Dr. Alejandro Cozzani</b>
Course Title & #:	<b>Physics 202</b>	Email:	<b>alex.cozzani@imperial.edu</b>
CRN #:	<b>21442</b>	Webpage (optional):	<b>Refer to Canvas</b>
Classroom:	<b>2731</b>	Office #:	<b>2776</b>
Class Dates:	<b>Class Start Date: February 17, 2026 Class End Date: June 12, 2026 Last Day to Add: February 28, 2026 Deadline to Drop with "W": May 16, 2027</b>	Office Hours:	<b>Online only:  Monday through Wednesday, 10:00-11:00 AM, Thursday 10:00-10:30 AM or by appointment (see Canvas announcement for details).  In person: Thursday: 2:00-2:30 PM (office 2776)</b>
Class Days:	<b>Thursday</b>	Office Phone #:	<b>760-355-5760</b>
Class Times:	<b>2:40 PM-5:50 AM</b>	Emergency Contact:	<b>Silvia Murray 760-355-6201</b>
Units:	<b>4.0 (3.0 Lecture/1.0 Lab)</b>	Class Format/Modality:	<b>Hybrid</b>

## Course Description

This course is designed to give an understanding of the fundamental principles of physics in the areas of electricity, magnetism, atomic, and nuclear physics.

## Course Prerequisite(s) and/or Corequisite(s)

PHYS 200 or equivalent with a grade of "C" or better and MATH 194 with a grade of "C" or better or concurrent enrollment in MATH 194.

## Student Learning Outcomes

1. Solve problems involving Coulomb's law, Gauss's law, and electric fields. (ILO 1, ILO 2).
2. Solve problems involving capacitors, resistors, and electric current. (ILO 1, ILO 2).
3. Solve problems involving magnetic fields in and near conductors, the motion of charged particles in a magnetic field, and Faraday's and Lenz's Laws. (ILO 1, ILO 2).

## Course Objectives

1. The student will solve problems involving electric charges, electric field lines and the motion of a charged particle in a uniform electric field.
2. The student will solve problems involving Gauss' Law.
3. The student will solve problems involving electrical potential, potential energy due to point charges and continuous charge distributions.
4. The student will solve problems involving capacitors.
5. The student will solve problems involving current, resistance, electrical energy and power.

6. The student will solve problems involving EMF, resistor combinations, Kirchoff's Law, and RC circuits.
7. The student will solve problems involving magnetic fields in and near conductors, and the motion of charged particles in a magnetic field.
8. The student will solve problems involving the magnetic field of various sources.
9. Student will solve problems involving Faraday's and Lenz's Laws, and induced EMFs.
10. The student will solve problems involving inductance for RL, LC, and RLC circuits.
11. The student will solve problems involving resistors, inductors, and capacitors in an AC circuit.
12. The student will solve problems involving electromagnetic waves.
13. The student will solve problems involving molecular bonds, the energy spectra of molecules, and semiconductors.
14. The student will solve problems involving nuclear binding energy, radioactivity, and the decay process.
15. The student will solve problems involving collisions between nuclear particles, fission, fusion, and elementary particles.

### Textbooks & Other Resources or Links

#### Textbooks (either one):

- a. Fundamental of Physics, 10<sup>th</sup> edition. ISBN: 978-1-118-23072-5 (Wiley).
  - i. Halliday/Resnick/Walker.
- b. Physics for Scientists and Engineers, 4<sup>th</sup> edition. ISBN: 978-13-149508-1 (Pearson).
  - i. Giancoli, Douglas C.
- c. University Physics, Volume II-III (Openstax.org). FREE OER
  - i. William Moebs, Samuel J. Ling, and Jeff Sanny.

### Course Requirements and Instructional Methods

#### 1. Your Success Starts Here!

Success is the goal—and you've got what it takes! Stay focused, work hard, aim high, and always give it your best effort.

#### 2. Time Commitment: What to Expect Outside of Class

According to the Department of Education, for every 1 hour of class time, you should plan on spending about **2 additional hours** working outside of class each week. This helps you stay on top of things and truly understand the material. (WASC follows the same guidelines.)

#### 3. Tech Checklist: What You'll Need for Canvas

To access assignments and complete your work online, make sure you have:

- A computer
- Reliable internet access (If needed, you can use internet at IVC or your local library)

- A compatible browser (Google Chrome or Firefox work best; Safari might not show everything correctly)

#### 4. Assignment Deadlines: Stay Ahead!

Each module is open for a full week, giving you plenty of time to complete the assignments.

##### Tips to stay on track:

-  Submit everything **directly in Canvas**—no emailed assignments will be accepted or graded.
-  You have **one full week** to complete assignments.
-  Avoid waiting until **Sunday at 11:30 PM** to submit, as technical issues may occur.

#### 5. Laboratory Experiments and Lab Reports

-  Lab experiments will be conducted **during class time**. After each experiment, you must submit a **full lab report**, which should include:
  -  Objective
  -  Summary
  -  Materials
  -  Procedure
  -  **Data table(s)**
  -  **Graphs (if applicable)**
  -  Responses to questions
  - Conclusion
-  Lab reports must be **typed, double-spaced**, using **Times New Roman, size 12** (or similar).
-  Graphs must be created using **Excel or another graphing program**. **Hand-drawn graphs will not be accepted**.
-  A hard copy of the report must be submitted within one week of the experiment date; late reports will not be accepted. You may also upload the report to Canvas.
  - All team members must upload the report regardless of the plagiarism percentage assigned to remaining students in the group.
  - The report must include all team members' names and be identical for everyone.
  - If you choose to submit an individual report, do not include other members' names.
-  Please arrive **on time**. Labs will begin as scheduled; late students **may not be allowed to participate**.
-  Only **one make-up opportunity** is allowed, covering **up to two labs**, due to space, time, and staffing limitations. Tentative date for make-ups is June 04, 2026.
-  If you are **absent, do not include your name** on the lab report.
-  You may submit a **group report** (same grade for all members) or an **individual report**. All group members must contribute.

## 6. Lecture and Readings

-  You are expected to **read the assigned chapters**, as assignments are aligned with the readings.
-  You may use **any textbook of your choice** that covers the course topics.

## 7. Online Discussions

-  Participate in **online discussions** posted in Canvas under the “**Discussions**” tab.

## 8. Online Quizzes

-  At the end of each module, you will complete an **online quiz** to assess your understanding.
-  Refer to the “**Quizzes**” tab in Canvas for detailed instructions.

## 9. Computer Simulations

-  You will complete **computer simulations** through Canvas to reinforce key concepts.

## 10. Problems and Questions

-  Each module includes **problems and conceptual questions** in Canvas to strengthen understanding and exam readiness.

## 11. Tests and Exams

-  Exams may include **true/false, multiple choice, open-ended, and free-response questions**.
-  **No make-ups allowed.**
-  All exams are taken **in class**.

## 12. Midterm Exam

-  May include **recycled questions** from earlier exams and **new questions** of similar difficulty.
-  **No make-ups allowed.**
-  Administered **in class**.

## 13. Final Exam

-  May include **recycled and new questions** of similar difficulty.
-  The **multiple-choice section covers ALL chapters**.
-  **No make-ups allowed.**
-  Administered **in class**.

## 14. Special Project

- As part of the course requirements, you will work in small groups to create a presentation on a topic of your choice. This project will give you an opportunity to explore a concept in depth, practice collaboration, and enhance your presentation skills. Please review the detailed instructions and rubrics on Canvas.

## 15. Absences

-  Students who are absent remain responsible for **all in-class work** and **all Canvas assignments**.

## 16. Make-Up Policy for Exams

-  Make-ups are allowed **only with valid documentation** (e.g., hospitalization).
-  You must **email the instructor promptly** and provide valid documentation. Without that, makeup requests can't be approved.

## Course Grading Based on Course Objectives

### How Your Grade Will Be Calculated

Your final grade will be based on **categories**, not just total points. Here's how each part of the class contributes to your overall grade:

CATEGORY	PERCENTAGE
Laboratory Experiments	20%
Problems / Questions	15%
Discussions / Quizzes/ Simulations	20%
Exams (2) / Special Project	20%
Mid-term / Final Exam	25%
<b>Total</b>	<b>100%</b>

### Grading Scale

Grade	Percentage
A	90–100%
B	80–89.99%
C	70–79.99%
D	60–69.99%
F	59.99% and below

- Your current grade is always visible in **Canvas**.
- You must earn at least a **C (70%)** to pass the course.

- Final grades **will not be rounded** (e.g., 89.99% is still a B), so aim for a strong finish and stay consistent!

### Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

### Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through *DSPS*, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

### Course Policies

#### ATTENDANCE

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

#### CLASSROOM ETIQUETTE

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

#### ONLINE NETIQUETTE

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

### **ACADEMIC HONESTY**

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

### **PLAGIARISM**

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

### **Other Course Information**

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **[Learning Services](#).** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).

## Course Syllabus - Physics 202 (CRN 21442) - Spring 2026

- [Library Services](#). There is more to our library than just books. You have access to tutors in the [Study Skills Center](#), study rooms for small groups, and online access to a wealth of resources.
- CANVAS LMS. Canvas is Imperial Valley College's Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.

Any student with a documented disability who may need educational accommodations should notify the instructor or the [Disabled Student Programs and Services](#) (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

### Financial Aid

Your Grades Matter! To continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at [finaid@imperial.edu](mailto:finaid@imperial.edu).

### IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

### Anticipated Class Schedule/Calendar

\*\*\*Subject to change without prior notice\*\*\*

WEEK OF	ACTIVITY, ASSIGNMENT, TOPIC	READING	ASSIGNMENTS DUE
Week 1 February 17-22	Syllabus / HW/Canvas Module 0	Read Content Module 0	February 22, 2026, by 11:59 PM
Week 2 February 23-March 01	Module 1: Electric Charge	Read Content Module 1	March 01, 2026, by 11:59 PM
Week 3 March 02-08	Module 2: Electric Field	Read Content Module 2	March 08, 2026, by 11:59 PM
Week 4 March 09-15	Module 3: Gauss's Law	Read Content Module 3	March 15, 2026, by 11:59 PM
Week 5 March 16-22	<b>Exam # 1 (Modules 1-2-3)</b>		<b>Done in Class</b>
Week 6 March 23-29	Module 4: Electric Potential	Read Content Module 4	March 29, 2026, by 11:59 PM
Week 7 March 30-April 04	Module 5: Capacitance	Read Content Module 5	April 04, 2026, by 11:59 PM
<b>April 05-12</b>	<b>SPRING BREAK</b>	<b>NO CLASS</b>	-----
Week 8 April 13-19	Module 6: Electric Current and Resistance	Read Content Module 6	April 19, 2026, by 11:59 PM
Week 9 April 20-26	Module 7: DC Circuits	Read Content Module 7	April 26, 2026, by 11:59 PM

## Course Syllabus - Physics 202 (CRN 21442) - Spring 2026

Week 10 April 27-May 03	Mid-term Exam (Modules 1-7)	—	Done in Class
Week 11 May 04-10	Module 8: The Magnetic Field	Read Content Module 8	<i>May 10, 2026, by 11:59 PM</i>
Week 12 May 11-17	Module 9: Magnetic Fields due to Currents	Read Content Module 9	<i>May 17, 2026, by 11:59 PM</i>
Week 13 May 18-24	Module 10: Electromagnetic Induction and Faraday's Law	Read Content Module 10	<i>May 24, 2026, by 11:59 PM</i>
Week 14 May 25-31	Module 11: Electromagnetic Oscillations and Alternating Current <b>Exam # 2 (Modules 8-9-10)</b>	Read Content Module 11	<i>May 31, 2026, by 11:59 PM</i> <b>Done in Class</b>
Week 15 June 01-07	MODULE 12: Maxwell's Equations; Magnetism of matter Review for Final Exam	Read Content Module 12	<i>June 07, 2026, by 11:59 PM</i>
Week 16 June 08-12	<b>Final Exam (All Modules 1-12)</b>		<b>Done in Class</b>