



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

*Thank you for choosing IVC! We are so happy to join you in your educational journey.*

## Basic Course Information

Semester	Fall 2020	Instructor Name	Dr. Alejandro Cozzani
Course Title & #	Physics 204	Email	alex.cozzani@imperial.edu
CRN #	11376	Webpage (optional)	Refer to Canvas
Room	Online	Office	2767
Class Dates	<ul style="list-style-type: none"><li>• August 17-December 12, 2020</li><li>• Last Day to Add: August 29, 2020</li><li>• Drop Deadline: November 07, 2020.</li></ul>	Office Hours	<b>Online office hours:</b> <ul style="list-style-type: none"><li>• Monday 10:00 AM-11:00 AM</li><li>• Tuesday 10:00 AM-11:00 AM</li><li>• Wednesday 10:00 AM-11:00 AM</li><li>• Thursday 10:00 AM-11:00 AM</li></ul>
Class Days Class Times	Tuesday 11:20 AM-2:30 PM	Office Phone #	760-355-5720
Units	4.0	Office contact if student will be out or emergency	Silvia Murray 760-355-6201

## Course Description

This course is designed to give an understanding of the fundamental principles of physics in the area of optics, thermodynamics, and modern physics.

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

Physics 200 with a grade of "C" or better and concurrent enrollment in Math 194.

## Student Learning Outcomes

1. Solve problems involving mirrors, lenses, polarization, reflection, refraction, interference, and diffraction. (ILO 1, ILO 2).
2. Solve temperature, heat, and First Law of Thermodynamics problems. (ILO 1, ILO 2).
3. Solve problems involving the Kinetic Theory of Gases, entropy, and the Second Law of Thermodynamics. (ILO 1, ILO 2).

## Course Objectives

1. The student will solve problems involving interference, reflection, and transmission of transverse waves.
2. The student will solve problems involving velocity, frequency, energy, intensity, and the Doppler effect of sound waves.
3. The student will solve problems involving resonance, superposition and interference of standing waves in air, strings, rods and plates.
4. The student will solve problems involving temperature, thermometric properties, and temperature scales.
5. The student will solve problems involving thermal energy, heat capacity, latent heat, heat transfer, and the first law of thermodynamics.
6. The student will solve problems involving the kinetic theory of gases and the concepts of ideal gases.
7. The student will solve problems involving heat engines, refrigeration, entropy, and the second law of thermodynamics.
8. The student will solve problems involving Huygens' Principle, reflection, and refraction.
9. The student will solve problems involving images formed by plane mirrors, spherical mirrors, and thin lenses.



## Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

10. The student will solve problems involving interference of light waves, Young's Double Slit Experiment, and interference in thin films.
11. The student will solve problems involving single slit diffraction, resolution, diffraction gratings, and polarization.
12. The student will solve problems involving Einstein's Theory of special relativity.
13. The student will solve problems involving the hypothesis of Planck, Einstein's photoelectric effect, atomic spectra, and the Bohr Theory of the atom.
14. The student will solve problems involving the wave properties of particles, the uncertainty principle, and the Schrodinger wave equation.
15. The student will solve problems involving the hydrogen atom, quantum numbers, electron spin, and the exclusion principle.

### Textbooks & Other Resources or Links

#### 1. 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, Volumes II and III (Openstax.org).
  - i. William Moebs, Samuel J. Ling, and Jeff Sanny.

### Course Requirements and Instructional Methods

1. Homework: The purpose of homework is to provide the student with sufficient practice to master all topics studied in class and to do well on tests. Homework is done online at: <https://www.pearsonmylabandmastering.com/northamerica/>
  - **Course ID: cozzani49163 (CRN 11376).**
    - *Please refer to webpage as HW assignments have three (3) different deadlines(end of September-9/26, end of October-10/31, and beginning of December-12/05) .*
    - You need to satisfactorily complete at least an overall 80% to get full credit, otherwise your earned percentage will be converted to points (i.e. 80%=100 points, 72%=72 points).

**It is extremely important that you use the same first and last name as in the IVC roster otherwise you may not get credit for HW. You cannot share/use other's person's account to do the HW. No exceptions!**

2. **Out of Class Assignments:** The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.
3. **Lab Experiments and Reports:** they have been replaced by computer simulations done via Canvas (pay attention to deadlines).
4. **Lecture:** You need to read the chapters because there are assignments aligned to your readings (you can use any textbook of your choice).
5. **Online Discussions:** As part of the course requirements, you need to answer the online discussions found in Canvas, under the "Discussions" tab.
6. **Online Quizzes:** At the end of each chapter you will take a quiz to check your knowledge. Please refer to specific instructions under the "Quizzes" tab in Canvas.
7. **Tests or Exams:** They may be T/F, multiple choice, open-ended, and free response questions (also, done in Canvas). No makeup exams!



## Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

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8. **Review questions and problems:** will be submitted via Canvas under "Assignments." Please pay attention to deadlines.
9. **Mid-term:** It may include questions from the tests (recycled questions) and new questions (you have not seen them before but with similar level of difficulty). No makeup! (also, done in Canvas).
10. **Final Exam:** It may include questions from the tests (recycled questions) and new questions (you have not seen them before but with similar level of difficulty). The MC section will include ALL chapters. No makeup! (also, done in Canvas).
11. Students will not be allowed to make up any exam unless they have a powerful reason to miss a test (e.g. hospitalization) and send the corresponding paperwork as evidence; it is students' responsibility to notify the instructor via e-mail to make arrangements. Since I can't retrieve phone calls, all communication has to be done via e-mail only.
12. All exams have been set up to 2 hours and 2 attempts. However, DSPS students who may need additional time need to contact the instructor in advance (time allowances depend on individual DSPS test proctoring notice).
13. **Special Project:** The following are suggested case studies involving an application of physics and a related practical that you can use for the project. Alternatively, you can choose one of your own as it relates to any topic of modern physics, optics, or thermodynamics.

➤ **Idea # 1: Investigate quantum tunneling composite materials**

**Case study brief**

Find out what sort of material a quantum tunneling composite is. Why is its behavior interesting and what is the significance of the phrase 'quantum tunneling'? What uses could it be put to and what are its current limitations?

**Suggestions for practical work**

Candidates could do experiments such as investigating the relationship between the applied stress to a strip of material and its electrical resistance/resistivity. Specimens of QTC material can be purchased online. Usually, the material comes with a booklet with a number of interesting possibilities for experiments.

➤ **Idea # 2: Investigate electroplaques and suggest why an electric eel can kill its prey without injuring itself**

**Case study brief**

Electroplaques are cells within animals like the electric eel. They are stacked in series and parallel and this arrangement can generate large voltages and currents that can be used to kill or stun prey. Candidates can find out about the chemical processes which lead to the generation of an emf in these biological cells, revise ideas on parallel and series, consolidate ideas about internal resistance and explain why the electric eel doesn't injure itself.

**Suggestions for practical work**

Determine the internal resistance of a biological 'lemon' cell. What happens if you connect three lemon cells in series then in parallel? The electric eel has many electroplaques in series to produce a large voltage - why does it have many chains of electroplaques in parallel?

Students can create a lemon cell from a lemon, copper coin and zinc-coated screw. Three of these in series will create a battery with a reasonable emf. They should connect the battery to a variable load resistor and measure the terminal potential difference and current for an appropriate number of load resistor values. The load resistors need to be chosen so that their range reflects the internal resistance of the battery.

➤ **Idea # 3: Investigate the viscosity of materials**

**Case study brief**

Viscosity is an important property of some ingredients in sweets, considering that fluids that are used to make sweets need to be pumped around the factory. These fluids are often kept at relatively high temperatures (you may want to find out why).

Sugar content may need to be measured. Two different techniques can be used to do this. The first technique, refractometry, uses the concept of critical angle. The second technique, polarimetry, uses the rotation of polarized



## Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

light. You may concentrate in relating what you have learned in class about the principles behind these techniques and why they are important for a factory.

### Suggestions for practical work

Determine viscosity of a liquid such as golden syrup. A straightforward method uses the falling ball technique with a measuring cylinder of liquid. A 3mm-diameter ball bearing should suffice. Elastic bands make useful markers over which to determine terminal velocity.

How does the refractive index of a sugared water solution/Perspex vary with sugar content? Prepare sugar solutions of different known concentrations. Students soak strips of sugar paper in these solutions to coat them and then stick each of the coated papers in turn onto the flat back of a semicircular Perspex prism. Students can find the critical angle for each sugar concentration by tracing rays of light through the prism from a light box (a good blackout will be essential). The refractive index for each of the different sugar concentrations can be calculated. How does the concentration of sugared water solution affect the angle of rotation of the plane of polarization? Students can make a simple polarimeter from a LED source, polarizing filters and a plastic cell to contain the liquid which can be placed above the polarized light source.

- **Requirements:**

- **The project is worth 100 points.**
- **The project is individual.**
- **A minimum of three (3) full typed pages, size 12 Times Roman or similar, single space or at least 5 pages double space.**
- **Include a bibliography page with at least five (5) sources.**
- **If you decide to the practical portion for extra credit (50 points), you have to record it using a phone, camera, computer, etc. Make sure the video has good audio and you may include an introduction describing its purpose, materials, steps, etc. You can do it in a PPT as well.**
- **It will be submitted during the week # 15 of the semester (no exceptions).**

### 14. What if I need to borrow technology or access to WIFI?

- To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: <https://imperial.edu/students/student-equity-and-achievement/>
- If you'd like access the WIFI at the IVC campus, you can park in parking lots "I & J". Students must log into the IVC student WIFI by using their IVC email and password. The parking lots will be open Monday through Friday from 8:00 a.m. to 7:00 p.m.

#### Guidelines for using parking WIFI:

- Park in every other space (empty space BETWEEN vehicles)
- Must have facemask available
- For best reception park near buildings
- Only park at marked student spaces
- Only owners of a valid disabled placard may use disabled parking spaces
- Only members of the same household in each vehicle
- Occupants **MUST** remain in vehicles
- Restrooms and other on-campus services not available
- College campus safety will monitor the parking lot
- Student code of conduct and all other parking guidelines are in effect
- Please do not leave any trash behind
- No parking permit required**

- If you have any questions about using parking WIFI, please call Student Affairs at 760- 355-6455.



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

## Course Grading Based on Course Objectives

The student's grade will depend on the following areas (not on total points):

➤ Homework / Online discussions	20%
➤ Tests / Special Project	20%
➤ Simulations / Quizzes	15%
➤ Mid-term	20%
➤ Final Exam	25%
➤ <b>TOTAL</b>	<b>100%</b>

All grades are calculated by using the standard scale of:

**A = 100-90%**    **B = 89-80%**    **C = 79-70%**    D = 69-60%    F = 59% and below

***Grades will be displayed in Canvas and you need to earn at least a "C."***

## 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 absences 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.
- **What does it mean to "attend" an online class?**

Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computer-assisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is **NOT** adequate to demonstrate academic attendance by the student.

## 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](#).



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

- 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 (!!!!)].

- **How am I expected to act in an online "classroom" (especially Zoom)?**

Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips below for best results:

- **Be RESPECTFUL**

- Your written, verbal, and non-verbal communications should be respectful and focused on the learning topics of the class.

- **Find a QUIET LOCATION & SILENCE YOUR PHONE (if zooming)**

- People walking around and pets barking can be a distraction.

- **EAT AT A DIFFERENT TIME.**

- Crunching food or chugging drinks is distracting for others.
- Synchronous zoom times are set in advance so reserve meals for outside class meetings.

- **ADJUST YOUR LIGHTING SO THAT OTHERS CAN SEE YOU**

- It is hard to see you in dim lighting so find a location with light.
- If your back is to a bright window, you will be what is called "backlit" and not only is it hard on the eyes (glare) but you look like a silhouette.

- **POSITION THE CAMERA SO THAT YOUR FACE AND EYES ARE SHOWING**

- If you are using the camera, show your face; it helps others see your non-verbal cues.
- You may be at home, but meeting in pajamas or shirtless is not appropriate so dress suitably. Comb your hair, clean your teeth, fix your clothes, etc. before your meeting time to show self-respect and respect for others.

- **Be READY TO LEARN AND PAY ATTENTION**

- Catch up on other emails or other work later.
- If you are Zooming, silence your phone and put it away.
- If you are in a room with a TV – turn it off.

- **USE YOUR MUTE BUTTON WHEN IN LOUD PLACES OR FOR DISTRACTIONS**

- Pets barking, children crying, sneezing, coughing, etc. can happen unexpectedly. It's best if you conference in a private space, but if you can't find a quiet place, when noises arise **MUTE** your laptop.

- **REMEMBER TO UNMUTE WHEN SPEAKING**

- Follow your instructor's directions about using the "raise hand" icon or chat function to be recognized and to speak, but make sure you have unmuted your device.
- Do not speak when someone else is speaking.

- **REMAIN FOCUSED AND PARTICIPATE IN THE MEETING**

- Especially when the camera is on YOU, we can all see your actions. Engage in the meeting. Look at the camera.
- Listen to instruction. Answer questions when asked.
- Do not use the Zoom meeting to meet with your peers or put on a "show" for them.

- **PAUSE YOUR VIDEO IF MOVING OR DOING SOMETHING DISTRACTING**

- Emergencies happen. If you need to leave the room or get up and move about, stop your video.



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

## 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 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.

### ➤ How do I show academic honesty and integrity in an online "classroom"?

#### • KEEP YOUR PASSWORDS CONFIDENTIAL.

- You have a unique password to access online software like Canvas. Never allow someone else to log-in to your account.

#### • COMPLETE YOUR OWN COURSEWORK.

- When you register for an online class and log-in to Canvas, you do so with the understanding that you will produce your own work, take your own exams, and will do so without the assistance of others (unless directed by the instructor).

#### • Examples of Academic Dishonesty that can occur in an online environment:

- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you;
- Conferring with others during a test or quiz (if the instructor didn't explicitly say it was a group project, then he/she expects you to do the work without conferring with others);
- Buying or using a term paper or research paper from an internet source or other company or taking any work of another, even with permission, and presenting the work as your own;
- Excessive revising or editing by others that substantially alters your final work;
- Sharing information that allows other students an advantage on an exam (such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class);
- Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

## Additional Student Services

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.



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

- [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](#).
- [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.

## How do I access services now that we are mostly online?

- 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.
- [Learning Services](#). In order to accommodate students and maximize student success during the COVID-19 Pandemic, all tutoring support is being provided through one Zoom link ([IVC online Tutoring](#)). When campus is open again, there are several learning labs to assist students. Whether you need support using computers, or you need a tutor, please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- [Library Services](#). Visit the Spencer Library's page on the IVC website for a wealth of valuable resources and online access to databases, e-books and more. Contact us so we can help you with instructional and research development skills (for those conducting research and writing academic papers). When campus re-opens, students also have access to tutoring services in the Study Skills Center as well as private study rooms for small study groups. There is more to our library than just books!
- [Career Services Center](#). The Career Services Center is dedicated to serve all IVC students and Alumni. Services include Career Assessments, Resume and Cover Letter Assistance, Interview Preparation, Internship Opportunities and Job Placement.
- [Child Development Center](#). The Preschool and Infant/Toddler Centers are on-campus demonstration lab programs that meet the educational, research, and service needs of the institution and community at large. The Preschool program (children three to five years of age) and the Infant/Toddler program (newborn to three years of age) is in buildings 2200 and 2300. Service is available to families who meet the California Department of Education qualifications for enrollment. [The centers are open during COVID](#) from Monday-Friday 7:15-5:30. Breakfast, lunch and snack are provided through the California Adult and Child Food Program. Location: Buildings 2200 and 2300. Phone: (760) 355-6528 or (760) 355-6232. Application: <https://forms.imperial.edu/view.php?id=150958>

## Disabled Student Programs and Services (DSPS)

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. [When campus is open](#), 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.

## Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- [Student Health Center](#). A Student Health Nurse is available on campus, [but you must make an appointment](#). In addition, Pioneers Memorial Healthcare District provides basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128, [or when campus reopens](#), visit Room 1536 for more information.
- [Mental Health Counseling Services](#). Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 for appointments, or [when campus reopens](#) visit Room 1536, for more information.





# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

## Veteran's Center

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. **When campus reopens**, the Center is located in Building 600 (Office 624), telephone 760-355-6141.

## Extended Opportunity Program and Services (EOPS)

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, [lourdes.mercado@imperial.edu](mailto:lourdes.mercado@imperial.edu).

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, [alexis.ayala@imperial.edu](mailto:alexis.ayala@imperial.edu).

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, book grants, transportation assistance, individualized counseling, tutoring, and community referrals to eligible students. Our staff is available to assist and support students in navigating personal, psychological, academic, and/or career-related issues through empathy, cultural-competence, and a commitment to equity and social justice. Also under the umbrella of EOPS is the CARE (Cooperative Agency Resources for Education) Program, designed to serve single parents and assist with addressing issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program. For additional information about the EOPS or CARE Programs please contact our Program Office 760.335-6407 and/or visit our Program website [www.imperial.edu/students/eops](http://www.imperial.edu/students/eops) for eligibility criteria and application procedures. We look forward to serving you! - EOPS/CARE Staff

## Student Equity Program

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.



# Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

## Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

## Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

## Anticipated Class Schedule / Calendar

Subject to modifications based on students' needs. **Refer to Course Syllabus, Canvas, and Mastering Physics for due dates and deadlines.**

WEEK OF	ACTIVITY, ASSIGNMENT, AND/OR TOPIC	READING	ASSIGNMENT DUE
1-August 17	_____	_____	_____
2- August 24	Syllabus / HW/Canvas Module 0: Meet and Greet Module 1: Waves I	Read Content Modules 0 and 1	<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
3 - August 31	Module 2: Waves II	Read Content Module 2	
4- September 07	Module 3: EM and Light Waves	Read Content Module 3	<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
5- September 14	<b>Exam # 1 (Modules 1-2-3)</b>		<b><i>Done in Canvas</i></b>
6- September 21	Module 4: Images	Read Content Module 4	
7- September 28	Module 5: Interference	Read Content Module 5	<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
8- October 05	Module 6: Diffraction	Read Content Module 6	
9- October 12	<b>Midterm Exam (Modules 1 through 7)</b>		<b><i>Done in Canvas</i></b>



## Imperial Valley College Course Syllabus - Physics 204 - Fall 2020

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10- October 19	Module 7: First Law of Thermodynamics	Read Content Module 7	<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
11- October 26	Module 8: Kinetic Theory of Gases	Read Content Module 8	
12- November 02	Module 9: Second Law of Thermodynamics	Read Content Module 9	
13- November 09	Module 10: Relativity	Read Content Module 10	<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
14- November 16	<b>Exam # 3 (Modules 7-8-9)</b>		<b><i>Done in Canvas</i></b>
<b>November 23</b>	<b><i>Thanksgiving Break</i></b>	<b><i>No Class</i></b>	
15- November 30	Work on Research Paper		<i>Refer to Course Syllabus, Canvas, and Mastering Physics for due dates</i>
16-December 07	<b>Final Exam</b>  <b><i>(Modules 1-10)</i></b>		<b><i>Done in Canvas</i></b>