

PHYZ 201 Physics DE MASTER

2017 Section ALL 05/09/2017 to 03/30/2050 Modified 07/09/2020

Meeting Times

Online Classes

Monday, 12:00 a.m. to Sunday, 11:59 p.m. (Pacific time)

Class Length

8 weeks

Your instructor *may* schedule optional synchronous/live sessions using the Virtual Classroom (Blackboard Collaborate) meeting space. Please check your course announcements for specific dates and times. All meetings will be recorded and will be accessible in the Virtual Classroom.

Contact Information

Course Description

This introduction to physics will give students a fundamental understanding of the basic laws of nature and their impact on our health and our universe. The course will explore basic concepts in classical mechanics (matter, motion, work, energy), thermodynamics (temperature and heat), electricity and magnetism, light and optics, and some elements of modern physics (nuclear radiation). Students will hone their analytical thinking skills and learn problem-solving techniques through theory and through observation and application in online lab sessions.

Course Learning Outcomes

1. Translate physical scenarios to algebra- or vector-based mathematical formulations that describe Newton's Laws of Motion, the Ideal Gas Law, Gauss's Law, Ohm's Law, and Maxwell's Equations.
2. Solve problems related to energy and work.
3. Describe the different types of oscillations and motion of waves.
4. Apply electric- and magnetic-field calculations.
5. Describe optics including geometric optics, interference, and diffraction.
6. Explain atomic theory and the principles of nuclear radioactivity.
7. Describe physical systems and their role in everyday life.
8. Observe and apply physics in labs and simulations.

Week	CLOs	PLOs	ILOs
1	1, 2, 10	1, 2, 3, 7	1, 3, 6
2	2, 3, 5, 7, 10	1, 2, 7	1, 3, 6
3	2, 3, 4, 5, 10	1, 2, 7, 8	1, 3, 6
4	2, 3, 5, 10	1, 6, 7, 8	1, 3, 6
5	2, 3, 8, 9, 10	1, 2, 5, 6, 7, 8	1, 3, 6
6	2, 3, 7	1, 2, 8	1, 2, 4, 7
7	2, 3, 5, 6	1, 2, 5, 6, 7, 8	1, 2, 3, 4, 7
8	2, 3, 5, 10	1, 2, 3, 5, 6, 7, 8	1, 2, 4, 7

Program Learning Outcomes

General Education Program Mission

The General Education program provides students with a measureable, outcomes-based foundational education that not only integrates with and complements the chosen academic emphasis, but also transcends the major discipline. The General Education program prepares students to be competent and ethical problem solvers. They will be adept at demonstrating critical reasoning, scientific methodology, multidisciplinary inquiry, and communication skills that will enable them to make intellectually sound decisions that will embody a cultivated and deep appreciation for cultural diversity for the world in which they live.

General Education Program Philosophy

The General Education program prepares students to be responsible, informed, and ethical citizens, and to develop the dimensions of character needed to navigate, adapt, and succeed in an ever-changing complex world. The General Education curriculum challenges students to explore and analyze the dimensions of the human condition through an intellectually coherent, meaningful, and transformative foundational education. The General Education program is designed such that engagement in high-impact learning experiences, technology, and integrative learning will advance students' knowledge and skills in written and oral communications, critical reasoning, cultural diversity, scientific reasoning and innovation, quantitative reasoning, and technological and informational literacy. The achievement of General Education core competencies affords students the foundation to grow personally, professionally, and socially, and seek opportunities for lifelong learning.

General Education Program Learning Outcomes

Following completion of the General Education curriculum, students will be able to:

1. Demonstrate competent written communication skills.
 1. Demonstrate an understanding of creative, academic, and other professional written communication.
 2. Demonstrate competence in written English communication through intensive, research-based practical application of basic and advanced writing principles.
 3. Demonstrate the ability to organize, develop, and present coherent written work that reflects a strong command of English grammar, sentence mechanics, paragraph structure, and paper formatting, and be able to employ these competencies effectively in a range of writing.
2. Employ effective oral communication skills.
 1. Demonstrate the ability to effectively apply verbal and nonverbal communication in a range of academic and nonacademic settings.
 2. Demonstrate the ability to analyze and address usages of ethos, pathos, logical fallacies, audience reception, cultures of communication, language choice, nonverbal cues, effective listening, and speech delivery.
3. Interpret quantitative data using mathematical principles to effectively identify core issues and solve problems.
 1. Demonstrate competence in quantitative reasoning by applying mathematical concepts and basic quantitative literacy to real-world applications.
 2. Demonstrate the ability to effectively synthesize, analyze, and interpret mathematical data to draw inferences and connect findings to a range of other disciplines.
4. Illustrate competence in the biological, physical, and natural sciences.
 1. Demonstrate an understanding of scientific concepts, theories, and principles.
 2. Demonstrate an ability to analyze, interpret, and apply scientific theory and investigative methodologies through laboratory and practical experiences.
 3. Demonstrate an effective connection of quantitative and critical reasoning to the biological, physical, and natural sciences.
5. Demonstrate technological and informational literacy by locating disparate information through multiple sources.
 1. Demonstrate the effective use of a multidisciplinary and ethical approach to electronic and print information access, retrieval, analysis, and synthesis of general and specialized information.
 2. Demonstrate the application of critical and quantitative reasoning skills to determine reliability and validity of information.
6. Analyze ideas and make decisions using critical thinking skills.
 1. Demonstrate an understanding of how to differentiate and analyze critical reasoning, perception, cognitive development, decision making, emotional intelligence, deductive and inductive reasoning, and formal and informal logic.
 2. Demonstrate an understanding, recognition, and construction of critical reasoning in relation to written and spoken arguments.
 3. Demonstrate competence in the application of critical reasoning techniques to address real-world situations and issues.
7. Describe and interpret diverse perspectives, value systems, histories, cultural traditions, and artistic expressions.
 1. Demonstrate an understanding and appreciation of the profound interconnectivity of diverse human behaviors, value systems, societies, cultures, and traditions.
 2. Demonstrate an understanding of the impact of the complexities and interconnections of society and culture across a variety of historical and contemporary contexts.
 3. Demonstrate the ability to explain how global culture and diversity impact students' own values, ethics, character, and judgment.
8. Articulate issues and arrive at a defensible conclusion, given a set of ethical dilemmas.
 1. Demonstrate the ability to recognize contexts in which ethical dilemmas arise.
 2. Demonstrate the ability to apply ethical values and principles to discipline-specific and other real-world situations.
 3. Demonstrate the ability to delineate competing ethical claims in the process of articulating a values-based, critically reasoned defense.

Your textbook is available in the Blackboard course under the **E-Text** menu item. The textbook is delivered through the Vital Source E-Text platform. Please note that some books do have a print on demand option. Print on Demand, if available, is found in your Vital Source bookshelf.

A Pocket Style Manual (APA Version)

Author: Hacker, Diana
Publisher: Bedford St. Martins
Edition: 8th
Availability: Available in your Vital Source Bookshelf (from previous terms)

College Physics

Author: Young, Adams & Chastain
Publisher: Pearson
Edition: 11th

✓ Evaluation

West Coast University Grading Scale (Reflective of final course grade; see associated policy in Catalog)	Grade	Points	WCU Grading Scale
	A	4	93–100
	A-	3.7	90–92
	B+	3.3	87–89
	B	3.0	83–86
	B-	2.7	80–82
	C+	2.3	76–79
	C	2.0	73–75
	C-	1.7	70–72
	D+	1.3	66–69
	D	1.0	63–65
	D-	0.7	60–62
	F	0.0	59 or below
	AU	0.0	Audit
	CR	0.0	Credit
	P	0.0	Pass
	NP	0.0	Not Passed
	I	0.0	Incomplete

TC	0.0	Transfer Credit
W	0.0	Withdrawal (Before Drop Deadline)
WF	0.0	Withdrawal (After Drop Deadline)

Note: AU, CR, P, NP, I, TC, W, and WF are used on the Academic Record but have no point values and are not computed in the [Cumulative Grade Point Average \(CGPA\)](http://westcoastuniversity.smartcatalogiq.com/en/Fall-2017/West-Coast-University-Catalog/Academic-Policies-and-Procedures/Calculating-the-Cumulative-Grade-Point-Average) (<http://westcoastuniversity.smartcatalogiq.com/en/Fall-2017/West-Coast-University-Catalog/Academic-Policies-and-Procedures/Calculating-the-Cumulative-Grade-Point-Average>).

A minimum passing grade is required for each course and **varies by program**. Earned grades below the minimum passing grade reflect that the course has not been successfully completed. Each academic program has unique prerequisite requirements. Please see the specific program section for additional information.

Students should review the program specific grading scale in the [University Catalog](http://westcoastuniversity.edu/admissions/catalog.html) (<http://westcoastuniversity.edu/admissions/catalog.html>).

Evaluation Criteria

The evaluation criteria consists of **Formative** and **Summative** assessments of student learning.



Formative: Assessment that occurs throughout the course to provide feedback and support for improved performance as part of an ongoing learning process.

Examples: Evidence-based research, presentations, case studies, specific class projects, weekly quizzes, homework assignments, clinical or lab assignments, practice exams



Summative: Assessment that occurs at the conclusion of the course to determine whether student learning outcomes have been achieved.

Examples: Final exam, term paper, or term project

Signature Assignments, where applicable, are course assignments designed to comprehensively measure student achievement of course and program learning outcomes.

Additional Information:

- All assignments are to be submitted via the online classroom except where otherwise noted. Email submissions will not be accepted. Grades and comments on graded items will be posted in the Blackboard Gradebook, unless otherwise specified. **All assignments submitted for each course must be created for that particular course. Any assignment (a paper or presentation) submitted for credit in one course may not be duplicated and submitted for credit in any other course unless approved by the faculty or noted in the syllabus.**
- Please review all rubrics in the course for assignment grading criteria, found under the My Grades tab.**
- It is important that you save all of your completed assignments for your records.**
- Please ensure that you have saved copies of all your work on a drive such as Dropbox or a personal hard drive as you may be asked to recall these assignments as you near the end of your program.

Criteria

Assignment	Weight / Points	Week Due	Details
Formative			

Assignment	Weight / Points	Week Due	Details
Summative			
Total Points	1,000		

Course and Program Specific Policies

Minimum Passing Grade

The Minimum Passing Grade in a General Education course is a C.

Assignments and Activities (written papers, journals, blogs, projects or similar, both in class or online):

Assignments submitted after the due date will be penalized at 5% per day. Late assignments will not be accepted more than 5 days after the due date, unless preapproval from the instructor has been obtained in writing. Note due dates and times posted in the course. Be sure to contact the instructor if you believe you must submit an assignment after the due date. Contact with the instructor regarding late assignments after the allowable 5 days does not guarantee approval to submit the assignment outside this time frame. Approvals outside the 5 days are generally provided for extenuating circumstances only.

Quizzes and Tests*

It is the student's responsibility to contact the faculty member within 48 hours of the original examination date of a quiz or test and follow the program policies for missed work. Students will not be allowed access to a quiz or test after the due date. Students may be able to complete a make-up quiz, test, or alternative assignment based on instructor discretion. Students who do not contact the faculty within 48 hours of the original examination date will earn a zero.

Examinations (Midterm and Final Examinations, Proctored Examinations, Proctored Assessments, or similar)*

Students are required to be present for all examinations. If the student must miss an examination due to a compelling reason**, the student must complete and submit the Examination Date Change Request form with the required supporting documentation for the event to the faculty member for that course. The documentation must be submitted at least three (3) weeks in advance of the examination. The faculty member will review and sign the request before submitting the documentation to the Dean, Director, or designee for approval or denial of the request. The documentation must be submitted at the time of the request, and the decision based on the original request is final.

Extenuating Circumstances

An extenuating circumstance is defined as an absence that is due to an unforeseeable circumstance and not a compelling reason or scheduled event. The student must notify the faculty member of the course within 48 hours before or after the date and time of the examination. The Dean, Director, or designee will make a determination regarding student eligibility to take an alternate form of make-up examination. If the student is able to demonstrate extenuating circumstances (such as the inclusion of healthcare provider documentation, a copy of obituary notice or death certificate, or a copy of police report for automobile accidents), the Dean, Director, or designee may permit an alternate form of a make-up examination. The student may earn up to 100% on this make-up examination based on the review of the supporting documentation of the extenuating circumstances.

- The make-up examination must be taken within five (5) business days of the initial examination administration or before the date of the next class.
- The make-up examination may not be the same examination but may be an alternative format such as an essay examination.
- The student must take the make-up examination in a proctored environment.
- If the student is not able to provide acceptable documentation for either a compelling reason or an extenuating circumstance, the maximum score that the student may earn on the examination is 76%.
- Students who do not take the examination on the scheduled make-up date or who do not contact the instructor within 48 hours of missing the examination will receive a zero score for the examination.
- One form is required for each request. Any future make-up requests require a new form.

- Receiving the maximum amount of points on a make-up examination will be considered **only** for students who provide documentation of a compelling reason** for missing the examination or if an extenuating circumstance occurs and is supported by documentation. This does not apply for students who miss their regularly scheduled examinations due to student choice or error (e.g., oversleeping). The final determination for approval of a make-up examination is at the discretion of the Academic Dean, Director, or designee.

**Course curriculum varies from course to course. Not all courses have quizzes, tests, or examinations. It is your responsibility to review each syllabus for assignment criteria.*

***A compelling reason is defined as planned events or discretionary participation in activities such as weddings or required travel.*



No work is accepted after the last scheduled class (on ground) or the last day of class (online).

Discussion Board Requirements*

The Online Discussion Board is designed to stimulate class dialogue that would normally take place in a face-to-face didactic setting. Participation in the Discussion Board serves as a learning strategy to help demonstrate student knowledge of course content. Each Discussion Board post will be assessed using a rubric (located under the "My Grades" menu). In addition to reviewing the grading criteria in the rubric, please note the following Discussion Board post expectations, which must all be met to earn full weekly discussion credit:

- Discussion posts must be completed during the week they are assigned. Discussion posts made in advance of the assigned week will not count toward the weekly discussion grade. If you wish to work ahead, please compose your responses in a Word document, then post when the week arrives.
- Each week, you are required to submit a reply to each initial prompt and replies to your peers or instructors in the Discussion Board. An automatic 10% point deduction will be assessed for all late **initial** postings.
Note: There may be more than one initial prompt per week, depending on the course and material covered. It is your responsibility to reply accordingly.
The required posts per initial prompt are described as follows:
 - No later than Wednesday, 11:59 p.m. (Pacific time) each week, you must post one (1) response to each initial prompt posted by the instructor AND
 - Throughout the week, and no later than the conclusion of each week, you must reply to a minimum of two (2) peers and/or instructors, per initial prompt, although replying to more is highly encouraged. Replies must be made throughout the week to show active participation.
- Any post made in the Discussion Board must be well-developed.
 - A well-developed post is meaningful, clearly demonstrates relevance to the topic, reflects critical thinking and your knowledge of the material, demonstrates *synthesis* of the subject matter, extends the discussion by building on previous posts, and includes proper source citations, when applicable. Posts limited to "I agree," "Great posting," or "Thank you" will not be assessed as well-developed and will therefore not be considered a contribution to the number of required weekly posts.

Late Discussions

Weekly discussion posts will be assessed according to the Discussion Board rubric in the My Grades area. Late postings that occur after Wednesday will reflect an automatic 10% point deduction. Discussion postings made after the week will not count toward the weekly discussion grade.

Assignments submitted after the due date will be penalized at 5% per day. Late assignments will not be accepted more than 5 days after the due date, unless preapproval from the instructor has been obtained in writing. Note due dates and times posted in the course. Be sure to contact the instructor if you believe you must submit an assignment after the due date. Contact with the instructor regarding late assignments after the allowable 5 days does not guarantee approval to submit the assignment outside this time frame. Approvals outside the 5 days are generally provided for extenuating circumstances only.



Late work is not accepted after the close of the course without prior approval from the instructor unless there are extenuating circumstances.

* Individual programs may have additional or varied discussion board requirements. Please see the program policy section of the syllabus for specific requirements.

The Course Outline below serves as a course roadmap, displaying the topics and activities intended to be covered each week. This schedule is subject to change in the event of extenuating circumstances. Please see the weekly agenda and announcements page in the Blackboard course for further information.

- **Objectives** reflect the teaching activities that, if engaged in, are intended to lead to specific, measurable student learning outcomes.
- **Course Activities and Assignments** outline the teaching strategies used and the assessment requirements that students are to fulfill throughout the duration of the course.

**Refer to the assignment rubrics in your course for specific grading criteria. Rubrics can be found in the My Grades section and/or in your assignment dropbox.*

Week	Topic	Objectives	Activities & Assignments
1			
2			
3			
4			
5			
6			
7			
8			

Institutional Policies

University Mission

At West Coast University, we embrace a student-centric learning partnership that leads to professional success. We deliver transformational education within a culture of integrity and personal accountability. We design market-responsive programs through collaboration between faculty and industry professionals. We continuously pursue more effective and innovative ways through which students develop the competencies and confidence required in a complex and changing world.

Institutional Learning Outcomes

Institutional learning outcomes are designed by the University as a whole, taking into account the role that both instruction and student services play in contributing to a student's success. Institutional learning outcomes assume achievement of the stated programmatic learning outcomes of one's discipline. Upon graduating from a degree program offered by West Coast University, students will be able to:

1. Implement intellectual and practical problem-solving skills through information assessment and critical thinking.
2. Demonstrate effective written communication skills.
3. Demonstrate effective oral communication skills.
4. Demonstrate computer proficiency and information literacy.
5. Describe ethical standards and legal guidelines associated with one's chosen career field.
6. Explain why knowledge of and respect for the societal contributions of diverse cultures and perspectives is an important quality in one's discipline.
7. Articulate the importance of working collaboratively with other healthcare providers in support of the client/patient.

Academic Integrity and Dishonesty

Students should review the Academic Dishonesty Policy in the [University Student Handbook](http://westcoastuniversity.edu/student-affairs/student-services.html). (<http://westcoastuniversity.edu/student-affairs/student-services.html>) Students are expected to approach their academic endeavors with the highest academic integrity. They must cite sources and submit original work. Academic honesty is central to the institution/student partnership toward student success. Students are accountable for adhering to the Academic Integrity and Academic Dishonesty policies in the [University Student Handbook](http://westcoastuniversity.edu/student-affairs/student-services.html). (<http://westcoastuniversity.edu/student-affairs/student-services.html>)

Attendance Policy

West Coast University has a clear requirement for students to attend courses. Students should review the Attendance Policy in the [University Catalog](http://westcoastuniversity.edu/admissions/catalog.html). (<http://westcoastuniversity.edu/admissions/catalog.html>)

Reasonable Accommodations

West Coast University strives to provide reasonable accommodations to students who have a defined need and who follow the appropriate steps toward seeking the accommodation. The Reasonable Accommodations Policy is found in the [University Catalog](http://westcoastuniversity.edu/admissions/catalog.html) (<http://westcoastuniversity.edu/admissions/catalog.html>) and the [Student Handbook](http://westcoastuniversity.edu/student-affairs/student-services.html). (<http://westcoastuniversity.edu/student-affairs/student-services.html>)

Classroom Policies

Students are expected to dress professionally during class time as required by the Code of Conduct in the Catalog and any rules in your programmatic handbook. No children are allowed in classes or to be unattended on campus. Use of cell phones, smart phones, or any other electronic devices in the classroom during class time is strictly prohibited. Unauthorized use may lead to faculty member confiscation of the device for the remainder of the class. Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. A student responsible for disruptive behavior may be required to leave the class.

Grade Rounding

At West Coast University, scores are not rounded to the whole number until the end of the term. All student assignments, quizzes, and examinations will be rounded to the first decimal point. At the end of the terms, final course grades will be rounded to the nearest whole point. For programs that use the exam average to determine whether other course assignments are included in the final scoring (e.g., Nursing), the end-of-term exam average may be rounded (using the above rules) to make that determination.

WCU Quiz, Test, and Exam Policies

Quiz, test, and exam policies vary by course objectives and programmatic expectations. Some quizzes, tests, and exams utilize a timed approach, password verification, authentication process, proctoring protocols, and academic integrity software. Students must follow the policies as outlined in the syllabus and in accordance with the university, program, and any third-party company (i.e., ATI®) policies. Refer to the Code of Conduct and Academic Honor Code found in the University Student Handbook. Reference the Late and Make-Up Work policy for specifics regarding missed quizzes, tests, and exams.

Late and Make-Up Work Policy

All students are expected to submit evidence of learning as established by the academic program, which is outlined in the course syllabus. Students are required to meet the course objectives by submitting coursework no later than the assigned due date. In order to demonstrate achievement of the course learning outcomes, students may be allowed to submit late work. Specifics regarding late work are listed in the program and/or course section of the course syllabus. If a student submits late coursework, the instructor, at her or his discretion, may deny acceptance of the assignment or award partial to full credit in alignment with the program policies. Technological issues are not an excuse for late submissions unless the problem stems from university equipment, Blackboard outages, or third-party content providers.

Missed Quizzes, Tests, and Exams

All quizzes, tests, and exams must be completed by the date they are assigned. If a quiz, test, or exam is missed due to a documented emergency situation (e.g., death in the immediate family), it is the student's responsibility to contact the faculty member within 48 hours of the original due date and follow the program policies for missed work. Students who do not make up the quiz, test, or assessment as scheduled or who do not contact the instructor within 48 hours will receive a zero score for that assessment.

Final Week of Term/Semester/Trimester

Quizzes, tests, and exams must be completed and assignments must be submitted no later than the last scheduled day of class during the final week of the term/semester/trimester. In the final week, some courses will have an alternative class meeting day, time, and room, or submission deadline. Specifics regarding the final week are listed in the course syllabus. Refer to the University Attendance Policy for maximum absences and other details.

Technology

West Coast University utilizes the Blackboard Learning Management System. Technical support for Blackboard is offered 24 hours per day, 7 days per week. There are minimum system requirements to access not only Blackboard but also any resources that may be posted in Blackboard or utilized in a course. Please refer to the [University Student Handbook](http://westcoastuniversity.edu/student-affairs/student-services.html). (<http://westcoastuniversity.edu/student-affairs/student-services.html>) for minimum technical requirements. For tech support options, please click on the Support tab located at the top of your Blackboard home page. Blackboard can be accessed here: [www.learn.westcoastuniversity.edu](https://learn.westcoastuniversity.edu) (<https://learn.westcoastuniversity.edu>)

Library Information

You can access the library through the Library tab at the top of your Blackboard home page or here: <https://westcoastuniversity.edu/academics/library-resources.html> (<https://westcoastuniversity.edu/academics/library-resources.html>)

Course Related Policies

West Coast University has specific course related policies for overload, auditing, repeats, courses passed but not successfully completed, add/drop and withdrawal. Please see the [University Catalog \(http://westcoastuniversity.edu/admissions/catalog.html\)](http://westcoastuniversity.edu/admissions/catalog.html) for course related policies.