



A college of the Riverside Community College District

**Norco College**

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**PHY-10**

**Section: 34413**

**Spring 2018**

**Instructor:** Ms. Louise Daniels

**Email:** Louise.Daniels@rcc.edu

**Class Hours:** TTh 2:30PM - 3:55PM

**Class Location:** ST 108

**Textbook:** *Conceptual Physics*, 12<sup>th</sup> edition by Paul G. Hewitt, but you may use the 11<sup>th</sup> or 10<sup>th</sup> or 9<sup>th</sup> editions instead

**Prerequisite:** Math 52

**COURSE DESCRIPTION:** Physics 10 is a general education course covering mechanics, properties of matter, heat, sound, light, electricity and magnetism, nuclear physics, and relativity. **It is strongly recommended that you separately register for Physics 11, the laboratory portion that corresponds with this course.**

**COURSE POLICIES:** Only those who are enrolled may attend the class. Roll will be taken during each class and one unexcused absence may result in the student being dropped from the course. Absences are only excused with documentation, such as a doctor's note. However, do not rely on the instructor to drop you from the course. If you choose to drop the course, it is your responsibility to fill out the necessary paperwork. Students are expected to observe *The Standards of Student Conduct* as listed in the *Student Handbook*. Students engaging in willful destruction of property may be removed from the course and subjected to further punitive action. Makeup exams are only given for excused absences, and you must notify the instructor of your absence for an exam as soon as possible. Missing an exam for an unexcused absence will result in a zero for the exam. Use of cell phone is not allowed in class. Please turn off your cell phone during class.

**EXPECTATIONS:** Students are expected to attend class regularly, take notes, participate in all classroom activities, read the text, and complete all homework assignments. Homework will be assigned and collected. Comprehension of the subject matter will be determined by a **midterm** and a **final exam**. Exams will be closed-book and closed-notes. Quizzes may be given out at random with the results incorporated into the subsequent exam score.

**CHANGES TO SYLLABUS:** This syllabus is subject to change made by the instructor and posted or distributed during any class session.

**GRADING:**

Homework	20%
Class participation	10%
Midterm	35%
Final	35%

Overall percentage (%)	Final grade
> 90	A
80.0 – 89.9	B
70.0 – 79.9	C
60.0 – 69.9	D
< 60	F

**Physics 10 Tentative Course Schedule – Spring 2018**

<b>Tuesday</b>	<b>Thursday</b>
13-Feb: Ch 1. Science Overview	15-Feb: Ch 2-3 Newton's First Law & Linear Motion
20-Feb: Ch 3-4 Newton's Second Law	22-Feb: Ch 5-6 Newton's 3 <sup>rd</sup> Law & Momentum <b>HW 1 Ch 1-4 Due</b>
27-Feb: Ch 6 Impulse	1-Mar: Ch 7 Energy
6-Mar: Ch 8 Rotational Motion. <b>HW 2 Ch 5-7 Due</b>	8-Mar: Ch 9-10 Gravity, Projectiles, & Satellites
13-Mar: Ch 10-11 Atomic Nature of Matter <b>HW 3 Ch 8-9 Due</b>	15-Mar: Ch 12-13 Solids & Liquids
20-Mar: Ch 13-14 Gases & Plasmas <b>HW 4 Ch 10-12 Due</b>	22-Mar: Ch 15-16 Temperature, Heat & Expansion
27-Mar: Ch 16-17 Heat Transfer & Phase Changes <b>HW 5 Ch 13-15 Due</b>	29-Mar: Ch 17-18 Thermodynamics
3-Apr: Review for Midterm <b>HW 6 Ch 16-18 Due</b>	5-Apr: MIDTERM EXAM Chapter 1-18
<b>Spring Break</b>	<b>Spring Break</b>
17-Apr: Ch 19 Vibrations	19-Apr: Ch 19-20 Waves & Sounds
24-Apr: Ch 21-23 Music & Electrostatics <b>HW 7 Ch 19-20 Due</b>	26-Apr: Ch 23-24 Electric Current & Magnetism
1-May: Ch 24-25 Electromagnetic Induction <b>HW 8 Ch 21-23 Due</b>	3-May: Ch 26-27 Light and Color
8-May: Ch 27-28 Reflection & Refraction <b>HW 9 Ch 24-26 Due</b>	10-May: <i>No Class</i>
15-May: Ch 29-30 Light Waves & Emission	17-May: Ch 31-32 Light Quanta & Atomic Nuclei <b>HW 10 Ch 27-29 Due</b>
22-May: Ch 33-34 Radioactivity & Nuclear Fission <b>HW 11 Ch 30-32 Due</b>	24-May: Ch 34-35 Nuclear Fusion & Special Relativity
29-May: Ch 35-36 General Relativity <b>HW 12 Ch 33-34 Due</b>	31-May: Review for Final <b>HW 13 Ch 35-36 Due</b>

**FINAL EXAM:** Tuesday, June 5, 2018 from 2:00 pm - 4:30 pm

**STUDENT LEARNING OUTCOMES:** Upon successful completion of the course, students should be able to:

1. Quantitatively describe motion for objects acted upon by forces using Newton's laws and the principles of momentum and energy for the cases of both linear and rotational motion; describe the source- and distance-dependence of gravitational attraction.
2. Describe the measurements of temperature, heat, internal energy, heat capacity, and the concepts of phase transitions and energy transport as they relate to the structure and properties of atoms and molecules.
3. Express the measures of wave speed, wavelength, frequency, and amplitude in algebraic format, and distinguish fundamental types of waves; describe the fundamental principles of reflection, refraction, interference, diffraction, transmission, absorption, emission, and their relationship to color in both objects and in light.
4. Use Coulomb's law and Ohm's law to describe electric and magnetic interactions of charged particles in various physical circumstances.
5. Identify sources and types of radioactivity; describe the half-life of radioactive isotopes and the processes of nuclear fission and fusion.

In addition, specifically for this class, student will also be able to:

Apply principle of special relativity to objects moving at near the speed of light; explain how the principle of equivalence relates acceleration to gravity in general relativity.

**ACADEMIC INTEGRITY:** Norco College is committed to maintaining academic integrity throughout the college community. Academic dishonesty is a serious offense that can diminish the quality of scholarship, the academic environment, the academic reputation, and the quality of a Norco College degree. The Student Handbook 2014-2015 states:

In cases of academic dishonesty by a student, a faculty member may

- 1) Reduce the score on test(s) or assignment(s);
- 2) Reduce the grade in the course;
- 3) Fail the student in the course if the weight of the test(s) or assignment(s) warrants course failure;
- 4) Recommend suspension from the course (see further details in Student Handbook, 37).

Academic dishonesty includes but is not limited to:

- a) Plagiarism – the intentional presentation of words, ideas or work of others as one's own. This includes but is not limited to: copying homework, using a work or portion of a work written or created by another but not crediting the source and using one's own work completed in a previous class for credit in another class without permission. The usual consequence of academic dishonesty is failure of the course and referral of the case to the Dean of Student Services for additional disciplinary action. Students may discuss assignments but are expected to complete all work independently.
- b) Cheating During Examinations – includes unauthorized use of electronic devices, copying from another, looking at another student's exam and opening books when not authorized.

Any of these practices could result in charges of academic dishonesty.

**ACCOMMODATIONS FOR DISABILITIES:** Norco College provides services to students with disabilities through the Disability Resource Center (DRC) located in the Center for Student Success Building. To request academic accommodations due to a disability, please visit the DRC or contact the DRC staff at 372-7070. A DRC staff member will confidentially review your concerns with you to determine any required accommodations. Once your accommodations are approved through DRC, please bring your DRC documentation(s) to me so that we may discuss them.

**ADDING THIS CLASS:** Students wanting to add this section will need to be provided with a four-digit add/authorization code. If you receive an add/authorization code, you are responsible for completing the add process **before** the deadline to add. This deadline can be found in the Schedule of Classes available online. Add codes can be processed through your WebAdvisor account. **If you fail to add the class by the deadline, you are not officially enrolled and college policy prohibits you from continuing to attend class.**

Be aware that your failure to pay fees/fines, to document prerequisites, to clear academic holds, or to navigate personal problems may hinder you from adding this section. Please allow sufficient time to take care of these issues **before the deadline to add**. Adding this course after the published deadline will require documented extenuating circumstances involving severe illness, accident, or death.

**The use of an add/authorization code issued to another student violates the Student Code of Conduct and the student will be referred to the Dean of Student Life for disciplinary action. The unauthorized use of an add code is grounds for removal from the course.**

**DROPPING THIS CLASS:** You may withdraw from this course by using WebAdvisor prior to the drop deadline. The deadline is available on WebAdvisor by selecting “My Class Schedule/Deadlines” after logging in. If there is a hold restricting use of WebAdvisor for this purpose, you may bring a completed ADD/DROP card to the Admissions counter of the college and complete the process there. It is the student’s responsibility to drop this class should he/she decide no longer to attend.

**COLLEGE SAFETY AND POLICE:** You may request a police escort to walk you to your car. To contact campus police for non-emergencies call (951) 222-8171. For emergencies dial 911.

**VIOLENCE ON CAMPUS:** Norco College does not tolerate any violence or implied violence. A threat of violence includes any behavior that by its very nature could be interpreted by a reasonable person as intent to cause physical harm to self, another individual, or property. Violence or the threat of violence against or by any **student** or employee of the District or any other person is unacceptable **and will not be tolerated**. Should an individual on District property, who is not an employee or student, or a student or employee of the District, demonstrate or threaten violent behavior, s/he may be subject to criminal prosecution (AP 3510 Workplace Violence and Safety).

If you are the victim of any violent, threatening, or harassing conduct, any witness to such conduct, or if you receive a report of such conduct, immediately report the incident to the supervisor of College Safety and Police (951) 222-8171. (AP 3510 Workplace Violence and Safety)

## STUDENT SERVICES

Norco College offers excellent services for all students. These services include help with disability accommodations, financial aid, finding jobs, academic counseling, health services, veterans services, tutoring and [more](#). Here is a partial list of resources available to you:

- **Disability Resource Center (DRC)**  
Center for Student Success (951) 372-7070  
[drc@norcolle.edu](mailto:drc@norcolle.edu)
- **Veterans Services**  
Student Services Building, First Floor (951) 372-7142  
[veterans.services@norcolle.edu](mailto:veterans.services@norcolle.edu)
- **Student Support Services**  
Student Services Building (951) 372-7149  
[hortencia.cuevas@norcolle.edu](mailto:hortencia.cuevas@norcolle.edu)

- **EOPS/CARE** (Extended Opportunity Programs and Services/Cooperative Agencies Resources for Education)  
Center for Student Success (951) 372-7128  
[eops@norccollege.edu](mailto:eops@norccollege.edu)
- **CalWORKs (California Work Opportunity and Responsibility for Kids)**  
Center for Student Success (951) 372-7052  
[norcocalworks@norccollege.edu](mailto:norcocalworks@norccollege.edu)
- **Learning Resource Center (LRC)**  
Wilfred J. Airey Library, First Floor (951) 739-7896  
[lrc@norccollege.edu](mailto:lrc@norccollege.edu)
- **Student Health and Psychological Services**  
Wilfred J. Airey Library Building, Lower Level (951) 372-7046  
[lisa.mcallister@norccollege.edu](mailto:lisa.mcallister@norccollege.edu)
- **Student Financial Services**  
Student Services Building, First Floor (951) 372-7009  
[maria.gonzalez@norccollege.edu](mailto:maria.gonzalez@norccollege.edu)

#### Special Programs:

- **Honors Program**  
Ana-Marie Olaerts (951) 739-7815  
[ana-marie.olaerts@norccollege.edu](mailto:ana-marie.olaerts@norccollege.edu)
- **John F. Kennedy Middle College High School**  
Erin Cole, Student Advisor (951) 738-2200 ext. 6008  
[ecole@cnusd.k12.ca.us](mailto:ecole@cnusd.k12.ca.us)
- **Puente**  
Contact Counseling office for information (951) 372-7101
- **Study Abroad**  
Jan Schall, Director (951) 222-8340  
[jan.schall@rcc.edu](mailto:jan.schall@rcc.edu)
- **Talented Tenth (T3P)**  
Contact Counseling office for information (951) 372-7101
- **STEM (Science, Technology, Engineering and Math) Scholars**  
(951) 739-7803  
[STEM@norccollege.edu](mailto:STEM@norccollege.edu)
- **Tutorial Services**  
Wilfred J. Airey Library Building, Lower Level (951) 372-7143  
[norcotutorial@norccollege.edu](mailto:norcotutorial@norccollege.edu)