CATALOG COURSE DESCRIPTION: 4 credits. For non-physical science majors. Kinematics, energy and momentum conservation, rotational dynamics, thermodynamics, fluids, harmonic motion and sound. Laboratory experiments illustrate many of these fundamental principles. Prerequisite: MATH 127 or MATH 128 or co-requisite. Coreq: MATH 181.

REQUIRED TEXTBOOK: College Physics, 9th Edition (make sure you get the version that comes with WebAssign access)
Authors: Serway/Vuille

Required Online Homework: We will be using the online homework program packaged with your textbook, the web address is: www.webassign.com. You will need the access code in your new textbook but there is a grace period of two weeks so even if you don’t have your book yet please login as soon as you can since homework starts right away! To join our class you need to enter the Class Key: unr 85080563

COURSE OBJECTIVE: Core Objective 4 (CO 4): Physical & Natural Phenomena
Students will be able to explain the processes by which the natural and physical world is investigated, articulate basic principles used to explain natural phenomena, and apply scientific processes to real problems using observational or experimental methods. Specifically PHYS 151 presents physical concepts for the classical world. These include Newton’s Laws of motion, the laws of thermodynamics, oscillations and harmonic motion, and sound waves.

STUDENT LEARNING OUTCOMES: Following is a list of things you should be able to do after completing this course. This list contains the minimum expected, you will be encouraged to take things further and learn as much as possible!

1. The student will demonstrate problem solving skills in various types of problems in physics using quantitative reasoning, critical thinking and appropriate mathematical techniques.
2. The student will demonstrate the ability to use scientific methods to understand and explain concepts in physics.
3. The student will be able to connect physics concepts and problems to their world experience.
4. The students will demonstrate skills in collection and interpretation of data from laboratory experiments.

Methodology: Class discussion and participation will enhance the learning environment and will be important ingredients in our class. We will use a variety of methods to introduce concepts including group work and discussion as well as more traditional methods. Our online component will be used for homework assignments as well as a place for extra practice. Please ask questions when something isn’t clear and especially if you find your curiosity has been piqued! Be willing to actively participate – volunteer a different explanation or point of view, ask a question, but please don’t exclude yourself from the learning process.

Ingredients for Success: Good habits to get into for this class include the basic ones like reading the chapters, ideally before we cover the material in class, working through homework problems and coming to class. Some other techniques that have proven effective include summarizing the reading as you go and making sure to try the example problems in the textbook on your own before looking over the solution. You will notice that learning physics is like learning a new language. The more you practice the more comfortable and confident you will become with the material. Make use of extra opportunities for help by attending supplemental instruction (SI) sessions as well as office hours.
Physics 151 General Physics I & Lab  Fall 2014

COURSE REQUIREMENTS:

Exams: There will be 3 exams and a comprehensive final, exams will include multiple choice, short problems, and long problems.

- 1st Exam: Friday, September 26
- 2nd Exam: Friday, October 24
- 3rd Exam: Friday, December 5
- Final Exam: Monday, December 15 @ 8 am for 8 am section and Monday, December 15 @ 10:15 am for 1pm section.

Policies regarding late work and make-up exams:
NOTE: There are NO make-up exams! The final exam is optional and can replace any of the three semester exams, so if you miss an exam you will take the final to replace it. If you are happy with your grade after the three semester exams you do not have to take the final!

Homework & Quizzes: Homework will be assigned each week. It is extremely important to work through each assigned question and problem, as it is impossible to learn physics without doing physics. This homework will be done and graded online. It is your responsibility to make sure you know the assignments. There will be a quiz most weeks. These quizzes will be based on material currently being covered and may consist of conceptual questions, problems, or a combination of both. Some quizzes may be based solely on the reading.
THERE ARE NO MAKEUP QUIZZES, please don’t ask! A total of 100 points for quizzes and 100 points for homework will be included in your final grade.
NO LATE HOMEWORK WILL BE ACCEPTED. However, at least two quiz scores and two homework scores will be dropped.

Attendance: It is expected that you attend all classes. If you must miss a class it is your responsibility to get all assignments and to know the material covered. Please don’t hesitate to call or email me for the information, however, I encourage you to get to know two or three of your classmates and exchange phone numbers or email addresses. Remember there are no make-up quizzes or exams!

Labs: Lab classes start the third week of class. Check your schedule for your day and time. You will be assigned a teaching assistant who will be responsible for giving you the requirements for completing the lab. Your lab grade will be included as part of the course grade and is calculated as 120 possible points toward your final grade. Note that you must attend a lab section and receive a satisfactory grade in order to pass the class.

Grades:

<table>
<thead>
<tr>
<th>Homework</th>
<th>100 pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>100 pts</td>
</tr>
<tr>
<td>Exams</td>
<td>300 pts</td>
</tr>
<tr>
<td>Lab</td>
<td>120 pts</td>
</tr>
<tr>
<td>Total</td>
<td>620 pts</td>
</tr>
</tbody>
</table>

| 620 - 558 pts | A |
| 557 - 496 pts | B |
| 495 - 434 pts | C |
| 433 - 372 pts | D |

NOTE: In order to pass the class you must take three exams and complete at least 50% of the homework and quizzes as well as complete the lab section with a satisfactory grade.
COURSE OUTLINE: The most important thing you can do to be prepared for all classes is to keep up with the reading and homework assignments. Read the chapters to be covered before coming to class, this will ensure you are ready to make the most of the class time since I will not be summarizing the reading. Some quizzes may be based solely on the reading! Please turn off your cell phone, computer, tablet, ipod, etc. when you enter the classroom. Talking on the phone, texting, IMing, engaging in social media, playing games, or any other non-class activities will not be tolerated and you will be asked to leave if you engage in them during class time. Please be courteous to your fellow classmates. Thank you!

- Week 1 - Chapters 1,2
- Week 2 - Chapter 3,4
- Week 3 - Chapters 4
- Week 4 - Chapter 5
- Week 5 - Chapter 5 (Exam 1, Friday, September 26)
- Week 6 - Chapter 6
- Week 7 - Chapters 6,7
- Week 8 - Chapter 7
- Week 9 - Chapter 8 (Exam 2, Friday, October 24)
- Week 10 - Chapter 9
- Week 11 - Chapter 10
- Week 12 - Chapter 11
- Week 13 - Chapters 11, 12
- Week 14 - Chapter 12
- Week 15 - Chapter 13 (Exam 3, Friday, December 5)
- Finals Week - Grades / Final (Monday, December 15 @ 8 am for 8 am section & 10:15 am for 1 pm section.)

Note: This is a tentative outline of what we will cover, we may spend more or less time on a particular topic. The exam schedule is set; the topics covered will reflect what we get to in class not always what the schedule above states.

Statement of Disability Services: "Any student with a disability needing academic adjustments or accommodations is requested to speak with the Disability Resource Center (Thompson Building, Suite 101) as soon as possible to arrange for appropriate accommodations."

Academic Success Services: Your student fees cover usage of the Math Center (784-4433 or www.unr.edu/mathcenter/), Tutoring Center (784-6801 or www.unr.edu/tutoring/), and University Writing Center (784-6030 or www.unr.edu/writing_center). These services are made available for your success, use them!

Academic Integrity: All examinations, quizzes and homework must be completed by the student; any act of plagiarism (cheating, piracy, theft, etc.) will result in immediate suspension from the course and possible suspension from the University. Any act of cheating or dishonestly will not be tolerated in this class. Make yourself aware of the policies of this university by reading The Student Handbook and University Catalog.

Statement on Audio and Video Recording: "Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded."