Instructor Information:  
Dr. Jason Eberle  
wjeberle@dcccd.edu  
Office: P212

Office Hours:  
Monday thru Thursday: 4:00PM – 5:00PM  
Friday: By appointment

Course Information:  
Course Title: College Physics I  
Course Number: PHYS 1401  
Section Number: 73200  
Credit Hours: 4

Class Meeting Times:  
Lecture: MW 8:00AM – 10:50AM C225  
Lab: MW 11:00AM – 1:50PM C225

Required or Recommended Textbooks and Materials  
Homework and Tutorials: WileyPlus  
Lab: No lab text is required.

Course description: Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving.

Course prerequisites: MATH 1314 College Algebra AND MATH 1316 Plane Trigonometry or MATH 2312/2412 Pre-Calculus
Program-Level Objectives for PHYS 1401

PHYS 1401 develops the following objectives from the Texas Higher Education Coordinating Board:

1. Communication Skills
2. Critical Thinking Skills
3. Empirical and Quantitative Skills
4. Teamwork

Course-Level Student Learning Outcomes for PHYS 1401

Upon successful completion of PHYS 1401, students will:

1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
2. Apply Newton’s laws to physical problems including gravity.
3. Solve problems using principles of energy.
4. Use principles of impulse and linear momentum to solve problems.
5. Solve problems in rotational kinematics and dynamics, including the determination of the location of the center of mass and center of rotation for rigid bodies in motion.
6. Solve problems involving rotational and linear motion.
7. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
8. Demonstrate an understanding of equilibrium, including the different types of equilibrium.
9. Discuss simple harmonic motion and its application to quantitative problems or qualitative questions.
10. Solve problems using the principles of heat and thermodynamics.
11. Solve basic fluid mechanics problems.
12. Demonstrate techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
13. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
Course guidelines:

“One must learn by doing the thing; for though you think you know it, you have no certainty, until you try.”

- Sophocles

Reading and written assignments will be given in class. A first reading of material should be done prior to the class in which it will be discussed, for my presentation can be different from the book. You will, however, benefit from seeing the same topic presented more than once. You should come to class prepared to ask and answer questions about the readings and written assignments. You are responsible for any material covered in lecture and the text, as well as the concepts, techniques, examples and counterexamples covered in assigned homework problems.

Grades

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<tr>
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<th>25%</th>
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<tbody>
<tr>
<td>Lab grade</td>
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<tr>
<td>Homework grade</td>
<td>15%</td>
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<tr>
<td>4 Exams</td>
<td>60%</td>
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Grading Scale

<table>
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<tr>
<th>Final Average</th>
<th>Letter Grade</th>
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<tr>
<td>90-100</td>
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<td>80-89</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>F</td>
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</table>

1Don’t ask me to raise your grade at the end of the semester. Your grade is based solely on the quality of your work. It would be unethical and unprofessional of me to base the grade on anything else. In addition, it would cheapen the effort of other students, and damage the reputation of the institution as well as myself. This is known as “Grade Grubbing” by some and is a source of major irritation for me. For more information see Don’t Do it!
Evaluation Procedures
Laboratory

At the beginning of labs we will have problem solving sessions with assignments that will individually count toward the lab grade. The labs will otherwise be done in teams. The grade is determined by the accuracy and quality of the lab work and the participation of all members in the team. Each team will share data\(^2\) but may be asked to present an individual laboratory report that is clear and concise and follows the guidelines handed out in the laboratory. **If you are more than 15 minutes late for class I will consider you absent and you will not be given credit for the lab!**

Exams

There will be **four exams** in this course. Each of these exams will cover three to four chapters from the text. The first three exams will be taken in the testing center and will be available for approximately one week. Please make sure you are aware of the testing center’s policies in advance. The fourth exam will be in class during finals week.

I will **NOT** give make up exams or extensions for **ANY**\(^3\) reason. I will however give a comprehensive exam on the last day (*also during finals week*) which will replace your lowest exam grade.

Long story short; there are five exams through the semester and I will take the highest four out of the five to calculate your exam grade.

Homework

The purpose of homework is to help you understand concepts by working with them and to provide practice in using techniques and solving problems. Homework is a “means”, not an “end”. Being able to do all the homework problems will not guarantee that you will do well on an exam, but it will HELP. *It is important that you understand the problems you solve.* Too often students complete assignments without really understanding what they have done. *You have an opportunity to learn here.* **PLEASE, I IMPLORE YOU! TAKE IT!**

There will be a homework assignment to go with each chapter. Even though the homework is only a small percentage of your overall grade, if you don’t do the homework assignments

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\(^2\)Sharing data with people not present on the day of the lab or with other lab groups will be considered as collusion and all members of both groups will be penalized! (See Item 5 under the Academic Dishonesty section.)

\(^3\)This includes illness, vehicular problems, documentation or identification issues, ignorance of deadlines, prior engagements, or lack of preparation.
The Science Learning Center (SLC)
The Science Learning Center (SLC) provides student services in the following subjects (majors and non majors): Biology, Botany, Microbiology, Anatomy and Physiology, Chemistry, Geology, Physics, Nutrition and Ecology.

The center is located in P-333 & P-334 and offers various resources all of which are free to the students. The SLC features tutors, software, videos, CDROMs, internet, models, places to study quietly, places for group work, and other materials to assist in science classes. In order to access resources of the SLC a North Lake College ID Card is required. The subject specific schedule of tutors is updated every semester and is located at the front of the SLC.

When students attend SLC we ask that they sign in and out. This data helps us keep the center stocked, running, and most of all, free of charge!

Hours of Operation

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<tr>
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<th>Spring/Fall:</th>
<th>Summer I &amp; II:</th>
<th>May/Winter - mester:</th>
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<tr>
<td>Monday - Thursday:</td>
<td>9am - 7pm</td>
<td>2pm - 7pm</td>
<td>2pm - 6pm</td>
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<tr>
<td>Friday &amp; Saturday:</td>
<td>9am - 3pm</td>
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Contact information
Center Phone: 972-273-3273
Coordinator: Amanda Turley

The Academic Success Center (ASC)
The Academic Success Center (ASC) is designed to provide assistance to students in the following areas:

Labs for students enrolled in foreign language, Developmental Reading, and ESOL courses. One-on-one tutoring is available.

- The Writing Center can help students clarify writing tasks, understand instructors requirements, develop and organize papers, explore revision options, detect grammar and punctuation errors, and properly use and document sources. Rather than merely editing or "fixing" papers, tutors focus on helping students develop and improve their writing skills. To schedule a tutoring appointment go to the ASC homepage on the North Lake website, NLC-ASCHomepage Find the Writing Center heading, click Appointments.

- The Online Writing Lab (OWL) allows students to submit papers to our writing tutors electronically and get feedback within 24-48 hours. The OWL can be accessed by going to the ASC homepage on the North Lake website, NLC-ASCHomepage Find The Online Writing Lab heading, click “SUBMIT PAPER HERE!”
## Learning Activities, Outcomes, and Assessment

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<thead>
<tr>
<th>Learning Activity</th>
<th>Learning Outcomes</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>Lab experiment in which the students will determine the acceleration due to gravity near Earth’s surface by using measurable quantities.</td>
<td>Practical modeling experience.</td>
<td>Laboratory report.</td>
</tr>
<tr>
<td>Students will calculate the acceleration of an object under the influence of a constant non-zero force.</td>
<td>The student will apply Newton’s Laws to solving problems.</td>
<td>Exam question.</td>
</tr>
<tr>
<td>Apply conservation of energy to a falling object.</td>
<td>Demonstrate an understanding of energy concepts.</td>
<td>Exam question.</td>
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“We live in a society exquisitely dependent on science and technology, in which hardly anyone knows anything about science and technology. This is a clear prescription for disaster.”

- Carl Sagan
**Testing Center (A425)**

No exam under any circumstances will be given with only one hour remaining until closing time. Please check the posted hours of operation before going to take an exam.

Be sure to have the following information when you request your test:

1. Instructor’s name (Dr. Jason Eberle)
2. Subject, course number, and section number (PHYS 1401 - 73200)
3. Exam number (1\textsuperscript{st}, 2\textsuperscript{nd}, 3\textsuperscript{rd}, etc.)
4. Exam deadline (Get this information from your instructor. The testing staff cannot look up this information on computers).

You should also bring the following supplies:

1. Pencil
2. Scantron answer sheet \textit{if necessary}
3. A Test Request Form must be completed before entering the Testing Center.
5. Government or school issued photo identification is required & enforced.

You may not bring personal items into the Testing Center. This includes bags, cell phones, and pagers.

Please show courteous and cooperative behavior while using the services provided by the Testing Center.

DO NOT bring children to the Testing Center. You must make arrangements for the care of your children prior to your exam date. The police department will be notified of any unattended children.

DO NOT take any testing materials with you when you leave the Testing Center. This includes the test, answers, charts, scratch paper. These items will be attached to your test. To do so constitutes Academic Dishonesty.

Questions? Please visit the Testing Center (A425) or online at Testing Center or call 972-273-3160.
Discipline/ Course/ Department/Policies

Classroom Etiquette:
Please be courteous to others, collegiate attitude is expected from all students.

Attendance Policy
Attendance to lectures and labs is mandatory in order to succeed in this course. You are encouraged to ask questions and to participate in class discussions. You are expected to be active in the laboratory.

Institutional Policies

Academic Dishonesty
The Student Code of Conduct prohibits academic dishonesty and prescribes penalties for violations. According to this code, which is printed in the college catalog, “academic dishonesty”, includes (but is not limited to) cheating, fabrication, facilitating academic dishonesty, plagiarism, and collusion”.

1) The Vice-President of Academic & Student Affairs may initiate disciplinary proceedings against a student accused of academic dishonesty.
2) Academic dishonesty includes, but is not limited to, cheating on a test, plagiarism and collusion.
3) Cheating on a test includes:
   a) Copying from another student’s test paper;
   b) Using, during a test, materials not authorized by the person giving the test;
   c) Collaborating with another student during a test without permission to do so;
   d) Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an un-administered test.
   e) Substituting for another student, or permitting another student to substitute for you to take a test; and
   f) Bribing another person to obtain an unadministered test or information about an unadministered test.
4) “Plagiarism” means the appropriation of another’s work (ideas and/or words) and the unacknowledged incorporation of that work in one’s written work offered for credit. Quotes not identified as quotes constitute a form of plagiarism even if the borrowed ideas are documented.
5) “Collusion” means an unauthorized collaboration with another person in preparing written work offered for credit.

1. Any student(s) suspected of academic dishonesty will receive a grade of zero on the assignment or exam.
2. Any student(s) with documented evidence of academic dishonesty will receive an F in the course and will be pushed through for suspension from the college.
Notification Of Absence Due To Religious Holy Day(s)
Students who will be absent from class for the observance of a religious holiday must notify the instructor in advance. Please refer to the Student Obligations section of the college catalog for more explanation. You are required to complete any assignments or take any examinations missed as a result of the absence within the time frame specified by your instructor.

Requirements Of The Americans With Disabilities Act (A414)
North Lake College provides academic accommodations to students with disabilities, as defined under ADA law. It is the student’s choice and responsibility to initiate any request for accommodations. If you are a student with a disability who requires such ADA accommodations, please contact North Lake College’s Disability Services Office in person (A414) or by phone at 972-273-3165. You may also find information online at North Lake College Disability Services

Administrative Withdrawal
Students with valid extenuating circumstances may be eligible for an administrative withdrawal by the Dean of the Division in which the course or courses are taught. An administrative withdrawal will not be awarded to students who simply fail to withdraw prior to the last day to receive a “W.” The request for an administrative withdrawal must be made in writing to the Dean of the Division with any supporting documentation attached. This must occur before the last official day of the semester.

Drop Policy
If you are unable to complete this course, you must officially withdraw by Wednesday, April 12th, 2017. Withdrawing is a formal procedure which you must initiate; your instructor cannot do it for you. All Dallas County Community Colleges charge a higher tuition rate to students registering the third time for a course. This rule applies to the majority of credit and Continuing Education / Workforce Training courses. Developmental Studies and some other courses are not charged a higher tuition rate. Third attempts include courses taken at any DCCCD college since the fall 2002 semester. For further information, go online to: Third Attempt to Enroll

Stop Before You Drop
For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: Dropping a Course or Withdrawing from College
Financial Aid Statement
Financial Aid Certification of Attendance:
You must attend and participate in your on-campus or online course(s) in order to receive federal financial aid. Your instructor is required by law to validate your attendance in your on-campus or online course in order for you to receive financial aid. You must participate in an academic related activity pertaining to the course such as but not limited to the following examples:

- initiating contact with your instructor to ask a question about the academic subject studied in the course;
- participating in an online discussion about academic matters relating to the course;
- submitting an academic assignment;
- taking an exam;
- completing an interactive tutorial;
- participating in computer-assisted instruction;
- attending a study group that is assigned by the instructor;

In an online class, simply logging in is not sufficient by itself to demonstrate academic attendance. You must demonstrate that you are participating in your online class and are engaged in an academically related activity such as in the examples described above.

Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate are also subject to this policy.

To apply for financial aid in the DCCCD, students must complete FAFSA (Free Application for Federal Student Aid) on the web at: http://www.fafsa.ed.gov.

Counseling Services (A311)
Counseling services for personal issues are provided to all students currently enrolled at North Lake College at NO CHARGE. These services are provided by or supervised by licensed professionals who are bound by confidentiality (within ethical parameters). With the assistance of a counselor, students are able to identify, understand, resolve issues and develop appropriate skills. To make an appointment call 972-273-3333 or go to A 311.

For additional information go to: North Lake College Counseling Services.
The **Office of Institutional Equity**, in coordination with DCCCD colleges, has the primary responsibility for reviewing, updating and implementing compliance policies and procedures. The Institutional Equity and Compliance Officer and the Office of Institutional Equity will ensure compliance with College District policies, federal and state laws related to sexual assault, Title IX, Title II (Americans with Disabilities Act) and the Military Veterans Full Employment Act to support diversity and inclusion.

**Students with Disabilities**
If you are a student with a disability and/or special needs, or if you think you may have a disability, please contact the college Disability Services Office (DSO). Please note that all communication with DSO is confidential. If you are eligible for accommodations, please provide or request that the DSO send your accommodation letter to me as soon as possible (students are encouraged to contact DSO at the beginning of the semester). For more information regarding the College Disability Services Office, please visit the Student Services website: [DSO Offices](#) or contact DCCCD Office of Institutional Equity at (214) 378-1633.

North Lake College Disability Services Office: A414, 972-273-3165

**A Note on Harassment, Discrimination and Sexual Misconduct**
We are committed to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX and DCCCD policy prohibit harassment, discrimination and sexual misconduct. If you encounter harassment, sexual misconduct (sexual harassment, sexual assault, stalking, relationship violence, stalking), retaliation or discrimination based on race, color, religion, age, national origin, disability, sex, sexual orientation, gender identity, and/or gender expression, please contact your College Title IX Coordinator or the Office of Institutional Equity. We treat this information with the greatest degree of confidentiality possible while also ensuring student welfare and college safety.

We are concerned about the well-being and development of our students, and are available to discuss any concerns. There are both confidential and non-confidential resources and reporting options available to you. If students wish to keep the information confidential, please contact the college Counseling or Student Health Services. As required by DCCCD policy, incidents of discrimination and/or sexual misconduct shared with faculty will be reported to the College Title IX Coordinator or District Title IX Coordinator. The Title IX Coordinator will contact the student and determine if further investigation is needed. For more information about policies, resources or reporting options, please contact your college Title IX Coordinator or visit [www.dcccd.edu/titleIX](http://www.dcccd.edu/titleIX).

North Lake College Title IX Coordinator:
Rosemary Meredith(acting), [TitleIX-NLC@dcccd.edu](mailto:TitleIX-NLC@dcccd.edu), 972-860-3992

District Title IX Coordinator, Office of Institutional Equity:
LaShawn Grant, [TitleIX-District@dcccd.edu](mailto:TitleIX-District@dcccd.edu), 214-378-1633
<table>
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<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>Jan 16th</td>
<td>18th</td>
</tr>
<tr>
<td>MLK Holiday</td>
<td>Ch 1: Introduction and Mathematical Concepts</td>
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<tr>
<td>No Class</td>
<td>Lab #1: Math and Measurement</td>
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<tr>
<td>23rd</td>
<td>25th</td>
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<tr>
<td>Ch 2: Kinematics in One Dimension</td>
<td>Ch 3: Kinematics in Two Dimensions</td>
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<tr>
<td>Lab #2: Graphical Vector Addition</td>
<td>Lab #3: One Dimensional Kinematics</td>
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<tr>
<td>30th</td>
<td>Feb 1st</td>
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<tr>
<td>Ch 3: Kinematics in Two Dimensions</td>
<td>Ch 8: Rotational Kinematics¹</td>
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<td>6th</td>
<td>8th</td>
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<tr>
<td>Ch 4: Forces and Newton’s Laws of Motion</td>
<td>Ch 5: Dynamics of Uniform Circular Motion</td>
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<tr>
<td>Lab #5: Free Body Diagrams</td>
<td>Lab #6: Centripetal Acceleration</td>
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<tr>
<td>13th</td>
<td>15th</td>
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<tr>
<td>Ch 9: Rotational Dynamics</td>
<td>Ch 6: Work and Energy</td>
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<tr>
<td>Lab #7: Equilibrium²</td>
<td>Lab #8: Conservation of Energy</td>
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<td>20th</td>
<td>22nd</td>
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<tr>
<td>Ch 7: Impulse and Momentum</td>
<td>Ch 10: Simple Harmonic Motion...</td>
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<tr>
<td>Lab #9: Conservation of Momentum³</td>
<td>Lab #10: Simple Pendulum</td>
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<tr>
<td>27th</td>
<td>Mar 1st</td>
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<tr>
<td>Ch 11: Fluids</td>
<td>Ch 16: Waves and Sound</td>
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<tr>
<td>Lab #11: Buoyancy</td>
<td>Lab #12: Speed of sound</td>
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<td>6th</td>
<td>8th</td>
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<tr>
<td>Exam 4 – In Class</td>
<td>Comprehensive Exam – In Class</td>
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</tbody>
</table>

¹Exam 1 covers Ch. 1-3 & 8 and is due Saturday, February 4th, 2017
²Exam 2 covers Ch. 4-5 & 9 and is due Saturday, February 18th, 2017
³Exam 3 covers Ch. 6-7 and is due Saturday, February 25th, 2017
⁴Exam 4 covers Ch. 10, 11, & 16 and will be held in class on Monday, March 6th, 2017