

Course Prefix/Number/Title: PHYS:251 University Physics Lab

Number of Credits: 1

Course Description: The general physics course equetsns for students majoring in chemistry, physics or engineering. Topics: Newtonioan mechanics and gravitation, work and energy, solids and fluids, heat and thermodynamics labs.

Pre-/Co-requisites: C or higher in Math 165 or Instructor approval

Course Objectives:

1. Students will apply physics principles to real world situations and/or future academic pursuits.
2. Students will work effectively within a collaborative group to achieve a distinct result.
3. Students will be able to Integrate learning theory with laboratory performance.

Instructor: Angela Bartholomay

Office: NSC 111

Office Hours: MW 9:00-10:00am, MTF 1:00-2:00pm or by arrangement

Phone: 701-228-5471

Email: angela.bartholomay@dakotacollege.edu

Lecture/Lab Schedule: Th 10am-11:50

Textbook(s): none

Course Requirements: Weekly attendance is mandatory, Scientific Calculator, formula page

Tentative Course Outline:

- *Units and estimation
- *Trigonometry
- *Problem solving strategy
- *Velocity
- *Acceleration
- *Free fall
- *Vectors and Two dimensional motion
- *Laws of motion
- *Energy
- *Momentum and collisions
- *Rotational motion

- *Law of gravity
- *Rotational equilibrium
- *Rotational dynamics
- *Solids
- *Fluids
- *Thermodynamics
- *Problem solving

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

#1- Identifies the interrelationships between humans and their environment

LO #1 Applies scientific methods of inquiry

Relationship to Campus Focus:

Classroom Policies: The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities. Attendance at lab is mandatory! Metric rulers and a scientific calculator are required. To obtain credit, you must be actively involved in the laboratory activities and is turned in at the end of the period.

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX

Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.