DAKOTA COLLEGE AT BOTTINEAU

Course Syllabus

Course Prefix/Number/Title: PHY 211/ College Physics Lab

Number of Credits: 4

Course Description: This non-calculus general physics course sequence recommended for pre-medical and pre-professional students.

Topics: vibration and waves, electricity and magnetism,
light and optics, and an introduction to modern physics. Includes lab.

Pre-/Co-requisites: Pre-requisite: Math 103

Course Objectives: Students will use reasoning skills to analyze and solve problems.
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: Tim Bohinski, Ph.D.

Office Hours: online, by appointment as necessary
Phone: 7605157057

Email: tim.bohinski@ndus.edu

Textbook(s): Physics; OpenStax 2e (free online)

Course Requirements:
In order for you to be successful in physics you will need to review the notes, complete practice assigned problems, conduct the labs and read the text.

Grades will be assigned based on the following scheme:
A- 90-100%; B 80-89.4% ; C- 70-79.4%; D- 60-69.4%; F<60%

10 Lab Reports at 100 points each= 1000 points
12 Homework at 50 points each= 600 points
4 Quizes at 150 points each= 600 points
3 Exams at 400 points each= 1200 points

Tentative Course Outline:
Week 1 Physics and Seience; Kit Order Acknowledgement, HW 1
Week 2 Kinemtaics; Lab 1; HW 2
Week 3 Laws of Motion; Lab 2; HW 3
Week 4 Newton Continued; Quiz 1; HW4
Week 5 Work and Energy; Lab 3; HW 5
Week 6 Exam 1
Week 7 Rotational Motion; Lab 4; Quiz 2; HW6
Week 8 Statics and Torque; Lab 5; HW7

Week 9 Heat; Lab 6; HW8
Week 10 Temperature and Gas Laws; Lab 7; HW9
Week 11 Thermodynamics, Lab 8, Quiz 3; HW10
Week 12 Exam 2
Week 13 Waves; Lab 9; HW11
Week 14 Electromagnetic Waves; Quiz 4; HW12
Week 15 Quantum Physics, Lab 10
Week 16 Final Exam

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): #1 Identifies the interrelationships between humans and their environment
Learning Outcome #1 Applies scientific methods of inquiry

Relationship to Campus Focus: This course addresses the campus theme by incorporating the role that physics plays in our everyday life and the impact it has on our natural world. In addition, students will use technology to conduct labs as well as study how technology can be used in physics. The course will address the role of physics in their everyday life as well as in their future.

Classroom Policies: There will be a 30% deduction for any exam not taken on time unless prior arrangements have been made with the instructor, and the exam must be made up within one week. Labs & Quizzes must be turned in during the week they are assigne, unless special circumstances exist and prior approval has been made with the instructor.

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.

AI Student Policy:

Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.