Course Content:

Catalog Description: PHYS 101. Basic Physics. 3.3-0. Prerequisite: MATH or placement in MATH 165. A study of mechanics, heat, and sound; course designed for students not majoring in chemistry or physics. Credit toward graduation may be earned in this course or in PHYS 201 but not in both. Students enrolled in this course should schedule PHYS 103.

Prerequisite: MATH 102 or placement in MATH 165.

Class Materials: A book is available at amazon.com. This book contains all course notes, homework problems, and practice exam questions. The book is at:
http://goo.gl/dNnlOv

Course documents will periodically be placed on the Moodle site for download. The course website will hold all public course materials:
http://www.nicholls.edu/phsc-faculty/cyoung

Student Outcome Objectives:

- PHYS 101, as a Core Curriculum course, fulfills three hours of general education requirements in the area of the natural sciences and is thus designed to enable students to meet the following broad outcomes for all the natural sciences:
  - Upon completion of the undergraduate curriculum, students will be able to comprehend and to apply the basic principles of science and methods of scientific inquiry.
  - Students will be able to comprehend and to use quantitative concepts and methods to interpret and to critically evaluate data and to effectively problem-solve in a variety of contexts demanding quantitative literacy.
  - Students will be able to comprehend and to apply the basic principles of science and methods of scientific inquiry.
  - For further explanation of the learning objectives associated with these goals, visit http://www.nicholls.edu/gened/goals_objectives.html.
- The student will demonstrate a conceptual and mathematical understanding of motion and vectors in 1 and 2 dimensions.
- The student will apply the concepts of energy and momentum (in 1 dimension) to problems involving one or more bodies in motion.
- The student will be able to mathematically and conceptually describe the behavior of bodies in rotational motion.
- The student will demonstrate knowledge of thermodynamics and its applications to gases, solids, and liquids.
- The student will demonstrate knowledge of vibrations and waves and apply this knowledge to the understanding of sound and its properties.

Testing: All exams will be closed book. Data and constants will be provided. The following are the exam dates:
- Exam #1: Friday, 4 September
- Exam #2: Wednesday, 30 September
- Exam #3: Wednesday, 21 October
- Exam #4: Friday, 20 November
- Final Exam: 1 pm, Monday, 7 December

Homework: I will assign the homework at the beginning of each segment. I will not collect the homework, but exams will be based heavily on homework questions.

Class Participation: Students will be able to receive a total and maximum of 25 points for class participation. These points will primarily come from clicker questions. The student will receive double-credit for answering questions correctly. To receive the maximum credit, the student must answer all of the questions and answer, at least, one-half of them correctly. In case of classroom disturbances, 3 points will be deducted from the student’s class participation credit.

Quiz Friday: Students must complete a quiz on Moodle each Friday by midnight. These quizzes will have 5-10 multiple choice questions, and each student will have only 1 attempt. The maximum credit for the quizzes will be 50 points; each student will receive a percentage, which they scored on the quizzes, of this maximum value.

Grading: There are a total of 625 points. Each exam counts 100 points, and the final exam is worth 150 points (550 points). Class participation credit comprises 25 points. Online quizzes are worth 50 points. The grading scale is percentage-based with A (90-100%), B (80-89%), C (70-79%), D (60-69%), and F (0-59%) grades being assigned at the end of the semester.

For example, a student might receive these grades:
- Hour exams: 80, 80, 75, 60
- Class participation: 25
- Online quizzes: 42
- Final Exam: 120

This student’s final grade would be the total of these points divided by 625, or 77.1% (C).

Make-up Policy: Make-ups for examinations will be determined by the instructor on a case-by-case basis. Excused absences include illness, university-sponsored activities, or other adverse situations; the student must have written documentation justifying their absence. For unexcused absences, I will deduct fifteen points from your exam grade for the first missed day and 3 points for every subsequent weekday until you contact me to arrange a make-up. For example, if you miss the exam on Tuesday and contact me on the following Monday, 24 points will be deducted from your exam grade.

Academic Honesty Policy: Dishonesty in taking examinations will follow the guidelines set in the “Code of Student Conduct” manual. Consequences for academic dishonesty span from a failing grade on the assignment to suspension from the university.

Attendance Policy: Attendance is essential and mandatory.

Drop Date: Friday, 23 October is the final date to receive an automatic “W” when dropping a course or resigning from Nicholls State University.

Clickers: You are required to purchase an i>clicker2 remote for in-class participation. i>clicker2 is a response system that allows you to respond to questions I pose during class, and you will be graded on that feedback and/or your in-class participation. You will register your clickers in class. If you have the older iClicker, you may also use it in the course.