SYLLABUS
Physics 101: Physics that Changed the World
Dr. Richard West
Spring 2016

I. TIME/PLACE Delivered and completed entirely on SIU Online (online.siu.edu) during the Spring 2016 semester. Please see the Syllabus Attachment - Spring 2016 for important information and dates.

II. REQUIRED RESOURCES

You must go through the green Pearson widget (Pearson's My Lab and Mastering) on our homepage to register with Mastering Physics. If you do not have the access card already, you can obtain access to Mastering Physics through this widget.

TEXTBOOK: Conceptual Physics, 12th ed., Hewitt.

Option 2: Traditional Text - Text + Modified MasteringPhysics ISBN 9780133857412

Option 3: Loose leaf - Text + Modified MasteringPhysics ISBN 9780133913965

INTERNET CONNECTION and a computer with minimum requirements below:
http://www.pearsonmylabandmastering.com/northamerica/educators/mm-support/system-requirements/

III. COURSE OBJECTIVES

The students will be able to comprehend the fundamental laws and principles of physics upon completion of this course. The students will be able to relate these laws/principles to the modern technological world. In learning the scientific method through virtual laboratories and better problem solving techniques via pointed homework, students will be able to read and translate physical data verbally and in the form of graphs or formulas. Ideally, the students will recognize the influence of science and technology on the world around them and even political and philosophical thought.

IV. COURSE STRUCTURE

The entire course is delivered through SIU Online (D2L). The course is divided into learning modules. These modules come with reading assignments. Notes will normally be provided in PDF format. However, certain concepts will require explanation, using occasional audio and video. Materials will be posted online throughout the semester.
Laboratory simulations contain interactive content. The labs overlap the concepts being learned or will be accompanied by supplemental content. Questions are asked covering your observations and results. Your questions should be answered - in your own words - typed in Word, and the Word document submitted to Dropbox on SIU Online (D2L) in Word format. There will be a total of seven labs, and the six best will be counted towards the final grade. No late laboratory reports will be accepted.

Homework assignments will be assigned for each module. These assignments will be delivered using Pearson Mastering. Homework assignments are given throughout the course. Due dates are posted in Pearson Mastering. No late homework will be accepted.

There are quizzes covering each module. These quizzes will be taken at the end of each learning module. The quizzes will be written in a manner that resembles the exams. There are seven quizzes that will be administered on SIU Online (D2L) and the six best will be counted towards the final grade. Each quiz will consist of 1 attempt and will only be open for a limited time. Quiz 1, however, will allow for 2 attempts with only the highest grade taken, in an effort to allow you some extra practice. Please do not start the quiz unless you are completely ready. They are timed. There are no late or make-up quizzes.

The term paper must be your own creation. It should be fun, covering a topic of your choosing. The paper must be submitted on time to the Dropbox in Word format and it must be original. It will be about 3 pages double spaced with citations. Specific guidelines are posted on your course website in the START HERE folder.

The midterm exam must be proctored.

The final exam is comprehensive and must be proctored.

PROCTORING information is posted in the START HERE folder under Exams.

V. GRADES

(a) Grade Breakdown: Virtual Labs: 25%
Homework: 12.5%
Quizzes: 12.5%
Term Paper: 10%
Midterm: 18%
Final exam: 22%

(b) Grade Scale: A: 85-100%
B: 75-84%
C: 65-74%
D: 55-64%
F: 0-54%
VI. **THE COURSE WEBSITE** – https://online.siu.edu/

You must go to the above website, sign in, and follow the link to PHYS 101. On the site you can get the following:

1. Notes
2. Important announcements and due dates
3. The syllabus attachment
4. Homeworks through Pearson Mastering widget
5. The virtual laboratories
6. Access to quizzes and exams
7. Grades!

VII. **CONTACT**

Dr. Richard West  
Email: rdwest@siu.edu

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**TENTATIVE SCHEDULE OVERVIEW - PHYS 101 - Online**  
See website (https://online.siu.edu/) for dates

<table>
<thead>
<tr>
<th>Week of class</th>
<th>Activities</th>
<th>Topics</th>
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| 1&2           | Learn SIU Online  
Virtual Lab 1, Homeworks | Measurements, Atoms, and Motion |
| 3&4           | Quiz 1  
Virtual Lab 2, Homeworks | Forces, Momentum, and Energy |
| 5&6           | Quiz 2  
Virtual Lab 3, Homeworks | Circular Motion, Gravity, and Kepler |
| 7&8           | Quiz 3  
Virtual Lab 4, Homeworks | Solids, Liquids, and Heat |
| 9&10          | Quiz 4  MIDTERM EXAM  
Virtual Lab 5, Homeworks | Waves and Electricity |
| 11&12         | Quiz 5  
Virtual Lab 6, Homeworks | Light and Quantum Physics |
| 13&14         | Quiz 6  
Virtual Lab 7, Homeworks | Nuclear Physics and Relativity |
| 15&16         | Quiz 7  
FINAL EXAM | |
IMPORTANT DATES*
Semester Class Begins ............................................. 01/19/2016
Last day to add a class (without instructor permission) ........ 01/24/2016
Last day to withdraw completely and receive a 100% refund: 01/31/2016
Last day to drop a course using SalukiNet: ..................... 04/03/2016
Last day to file diploma application (for name to appear in Commencement program): ......................... 02/12/2016

Final examinations: ................................................. 05/09-05/13/2016

Note: For outreach, Internet, and short course drop/add dates, visit Registrar’s Academic webpage http://registrar.siu.edu/

SPRING SEMESTER HOLIDAYS
Martin Luther King, Jr.’s Birthday Holiday 01/18/2016
Spring Break 03/12—03/20/2016

WITHDRAWAL POLICY - Undergraduate only
Students who officially register for a session may not withdraw merely by the stopping of attendance. An official withdrawal form needs to be initiated by the student and processed by the University. For the proper procedures to follow when dropping courses and when withdrawing from the University, please visit http://registrar.siu.edu/catalog/undergraduatecatalog.html

INCOMPLETE POLICY - Undergraduate only
An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within one semester following the term in which the course was taken or graduation, whichever occurs first. Should the student fail to complete the course within the time period designated, that is, by no later than the end of the semester following the term in which the course was taken, or graduation, whichever occurs first, the incomplete will be converted to a grade of F and the grade will be computed in the student’s grade point average. For more information please visit: http://registrar.siu.edu/grades/incomplete.html

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit no more than two times (two total enrollments) unless otherwise noted in the course description. For students receiving a letter grade of A, B, C, or D, the course repetition must occur at Southern Illinois University Carbondale. Only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. See full policy at http://registrar.siu.edu/catalog/undergraduatecatalog.html

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please visit http://gradschool.siu.edu/about-siu/grad-catalog/index.html

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must come to the DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

PLAGIARISM
Student Conduct Code: http://arr.siu.edu/student_conduct_code/

MORRIS LIBRARY HOURS
http://www.lib.siu.edu/about

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students, and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Saluki Cares: (618) 453-5714, or salukicares@siu.edu, http://salukicares.siu.edu/index.html

EMERGENCY PROCEDURES
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. We ask that you become familiar with the SIU Emergency Response Plan and Building Emergency Response Team (BERT) programs. Emergency response information is available on posters in buildings on campus, available on BERT’s website at www.bert.siu.edu, Department of Safety’s website at www.dps.siu.edu (disaster drop-down) and the Emergency Response Guideline pamphlet. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.

INCLUSIVE EXCELLENCE
SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well an essential preparation for any career. For more information please visit: http://www.inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring: http://tutoring.siu.edu/
Math Labs: http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit http://wnte.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office’s main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/

Additional Resources Available:
SALUKINET: https://salukinet.siu.edu/cp/home/displayLogin
ADVISEMENT: http://advisement.siu.edu/
PROVOST & VICE CHANCELLOR: http://pvcaa.siu.edu/
SIU ONLINE: http://online.siu.edu/