PRAIRIE VIEW A&M UNIVERSITY

SYLLABUS

PHYS 2123-P01-1720-20984, General Physics II
Spring 2017

Instructor:	Prof. P. Intsiful
Section # and CRN:	P01 20984
Office Location:	E.E. O'Banion (New) Science Building, Room 330
Office Phone:	936-261-3136
Email Address:	paintsiful@pvamu.edu
Office Hours:	M 12:30 pm to 1:30 pm & W 3:30 pm to 4:30 pm
Mode of Instruction:	Face to Face
Course Location:	NSCI Room 104
Class Days & Times:	TR 11:00 am to 12:20 pm
Catalog Description:	This is a 3 semester hours, a continuation of algebra and trigonometry based General Physics I. The course includes sound, heat, electricity, magnetism, and optics.
Prerequisites:	Prerequisites: PHYS 2113 or PHYS 2513.
Co-requisites:	None
Required Texts:	**College Physics 8th Ed.**, **Vol. 2** by Serway and Vuille ISBN-13; 978-0-495-38693-3 ISBN-10; 0-495-38693-3
Recommended Texts:	**Physics, 6th Ed.**, by Cutnell and Johnson, ISBN: 0471-15183-1 (Wiley) **College Physics**, OpenStax College. 21 June 2012 http://www.khanacademy.org/

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	Demonstrate understanding of the relationship among electric force and field, electric potential, kinetic and potential.	1	Critical Thinking
2	Demonstrate the origin of magnetic field from electrical currents and be able to apply the Biot-Savart law and Ampere's law.	1	Critical Thinking and Communication
3	Understand capacitance and resistance in DC circuits and their roles in the storage and dissipation of electrical energy.	1	Empirical and Quantitative
4	Participate in group homework and in-class exercises.	1	Teamwork
5	Understand the basic wave properties of light: reflection, refraction, interference, and diffraction.	1	Critical Thinking
6	Discuss and explain numerical problems in the class.	1	Communication

Major Course Requirements

Method of Determining Final Course Grade

	Course Grade Requirement	Value	Total
1)	Attendance	5 %	5 %
2)	Homework	20 %	20 %
3)	Exam (2)	30 %	30 %
4)	Mid-Term	20 %	20 %
5)	Final Exam	25 %	25 %
Total:		100 %	100 %

Grading Criteria and Conversion:

A = 90 – 100 %
B = 80 – 89 %
C = 70 – 79 %
D = 60 – 69 %
F = Below 60 %

Detailed Description of Major Assignments:

Assignment Title or Grade Requirement	Description
	Homework: After each chapter, there will be homework that is directly related to the concepts discussed and sample problems solved in class. The course will cover 12 chapters. The homework will make up 20% of total grade.
	Exams: There will be two exams. These will consist of materials covered before the exam. These exams will make up 30% of the total grade.
	Mid-Term Exam: This will consists of materials covered in the first half of the semester, making up 20% of the total grade.
	Final Exam: This will be comprehensive. It will consists of half the materials covered in the final chapters that were not included the previous exams. The other half will cover the chapters from first half of the semester, making up 20 % of the total grade.

Course Procedures or Additional Instructor Policies

Taskstream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. At least one of your assignments is **REQUIRED** to be submitted as an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- **Lectures:** Attendance of lectures is required, and students are expected be arrive on time, stay for the entire class period, and actively participate. (See the University attendance policy below.) The lecture does not replace reading the materials. The lecture is intended to expand, explain, and offer a different perspective on the material in the textbooks.
- **Group Exercises:** In-class exercises will be assigned in class. Students may use their notes, textbooks, and discuss the problem with their immediate neighbors.
- **Homework:** Homework problems will be assigned on a timely basis. It is the responsibility of the student, individually or within a group, to complete each homework assignment by the due date. The instructor is available during office hours to assist students, and tutors are provided by the Physics Department. It is essential that the student understands the solution to problems if he/she is to succeed in this course; failure to understand homework problems will likely result in a negative outcome on exams.
- **Exams:** Three unit exams and a final exam are scheduled. Only calculators and no other electronic equipment are permitted during the exams. Phones are to be turned off and unavailable.
- **Late Homework or Missed Tests:** Late homework will not be accepted unless the student demonstrates exceptional circumstances. A class exercise cannot be made up. A unit exam may be excused or made-up at the instructor's discretion and only in the case that the student has a valid excuse. Inform the instructor in advance of an exam if there is a valid schedule conflict to schedule an acceptable time. In the event that an emergency occurs that causes an exam to be missed, it is expected that the student provide written evidence and schedule a make-up exam for as soon as possible following the emergency. There may be no opportunity to take the final exam after the scheduled time.
- **Electronic equipment:** No phones, computers, audio or other electronic equipment are permitted during class hours. This includes lectures, exercises and exams. Only calculators are permitted.

Semester Calendar

Week One:	**Chapter-15: Electric Force & Electric Fields**
Topic Description	
Readings:	**T Jan. 17: Introductory Concepts Electric Forces & Electric Fields** **R Jan. 19: Electric Fields & Gauss's Law & Numerical Examples on Method of Solving Electric Fields Problems**
Assignment (s):	**R Homework #1 (Electric Force & Electric Field)**
Week Two:	**Chapter-15 Cont. : Electric Field & Gauss's Law**
Topic **Description**	
Readings:	**T Jan. 24: Lecture** **R Jan. 26: Numerical Examples**
Assignment (s):	**R Homework #2 (Electric Field & Gauss's Law)**
Week Three:	**Chapter-16: Electric Potential, Electrical Energy & Capacitance**
Topic **Description**	
Readings:	**T Jan. 31: Lecture** **R Feb. 2: Numerical Examples**
Assignment (s):	**R Homework #3 (Electric Potential, Electrical Energy & Capacitance)**
Week Four:	**Exam-1 (Ch. - 15 and 16)**
Topic **Description**	
Readings:	**T Feb. 7: Review** **R Feb. 9: Exam-1**
Assignment (s):	**R Homework #4 (Read Ch. 17 for week five)**
Week Five:	**Chapter -17 & 18: Current and Resistance & Direct-Current Circuit**
Topic **Description**	
Readings:	**T Feb. 14: Lecture** **R Feb. 16: Lecture & Numerical Examples**
Assignment (s):	**R Homework #5 (Current and Resistance & Direct-Current Circuit)**
Week Six:	**Exam-2 (Ch. - 17 and 18)**
Topic **Description**	
Readings:	**T Feb. 7: Review** **R Feb. 9: Exam-1**
Assignment (s):	**R Homework #6 (Read Ch. 19 for week seven)**
Week Seven:	**Chapter-19: Magnetism – Magnetic Fields**
Topic **Description**	
Readings:	**T Feb. 28: Lecture** **R Mar. 2: Numerical Examples**
Assignment (s):	**R Homework #7 (Magnetic Fields)**

Week Eight: **Mid-Term: Exam-3 (Paper Project)**

Topic **Description**

Readings: **T Mar. 7: Review and Induced Voltages**
R Mar. 9: Exam-3 (Paper Project)

Assignment (s): **R Homework #8 (Read Ch. 20 for week seven)**

Week Nine: **Mar. 13 to Mar. 18: Spring Break**

Week Ten: **Chapter-20: Induced Voltages and Inductance & Inductance**

Topic **Description**

Readings: **T Mar. 21: Lecture**
R Mar. 23: Numerical Examples

Assignment (s): **R Homework #9 (Induced Voltages and Inductance & Inductance)**

Week Eleven: **Chapter-21: Alternating Current Circuits and Electromagnetic Waves**

Topic **Description**

Readings: **T Mar. 28: Lecture**
R Mar. 30: Numerical Examples

Assignment (s): **R Homework #10 (AC-Current Circuits and Electromagnetic Waves)**

Week Twelve: **Exam-3 (Ch. 19 to 21)**

Topic **Description**

Readings: **T Apr. 4: Review**
R Apr. 6: Exam-4

Assignment (s): **R Homework #11A (Read Ch-22 for week thirteen)**

Week Thirteen: **Chapter- 22 & 23: Reflection and Refraction of Light & Mirrors and Lenses**

Topic **Description**

Readings: **T Apr. 11: Lecture**
R Apr. 13: Numerical Examples

Assignment (s): **R Homework #11 (Reflection and Refraction of & Light Mirrors and Lenses)**

Week Fourteen: **Special Topics (Wave Optics, Atomic and Nuclear Physics)**

Topic Description

Readings: **T Apr. 18: Lecture**
R Apr. 20: Numerical Examples

Assignment (s): **R Homework #12 (Special Topics)**

Week Fifteen: **Final Exam: Exam-4 (Chapters 22, 23, Special Topics plus Summery of Exams 1, 2, and 3)**

Topic Description

Readings: **T Apr. 25: Review and Recitation-Problem Solving**
R Date (University Schedule): Final Exam

Assignment (s): **R None**

Student Support and Success

John B. Coleman Library
The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. https://www.pvamu.edu/library/ Phone: 936-261-1500

The Learning Curve (Center for Academic Support)
The Learning Curve offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Learning Curve is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library Rm. 207F. Phone: 936-261-1561

The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS)
The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library Rm. 306. Phone: 936-261-1040

Writing Center
The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Students taking on-line courses or courses at the Northwest Houston Center or College of Nursing may consult remotely or by email. Location: Hilliard Hall Rm. 121. Phone: 936-261-3724.

Student Counseling Services
The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Owens-Franklin Health Center Rm. 226. Phone: 936-261-3564

Testing
The Department of Testing administers College Board CLEP examinations, the HESI A2 for pre-nursing majors, LSAT for law school applicants and MPRE for second-year law students, the Experiential Learning Portfolio option, the Texas Success Initiative (TSI) Assessment, which determines college readiness in the state, and exam proctoring, among other service such as SAT and ACT for high school students. Location: Delco Rm. 141. Phone: 936-261-4286

Office of Diagnostic Testing and Disability Services
As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders,

livescribe, Kurtzweil, and a comprehensive referral network across campus and the broader community. Location: Evans Hall Rm. 317. Phone: 936-261-3585

Veteran Affairs
Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall Rm. 323. Phone: 936-261-3563

Office for Student Engagement
The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center Rm. 221. Phone: 936-261-1340

Career Services
Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Evans Hall Rm. 217. Phone: 936-261-3570

University Rules and Procedures

Disability Statement (Also See Student Handbook):
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Evans Hall, Room 317, or call 936-261-3585/3.

Academic Misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of Academic Dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.

2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.

3. Fabrication: use of invented information or falsified research.

4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic Misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such

disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual Misconduct (See Student Handbook):
Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Title IX Statement
Prairie View A&M University (PVAMU) is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of sex- or gender-based discrimination, including sexual harassment, sexual assault or attempted sexual assault, we encourage you to report it. While you may talk to a faculty member about an incident of misconduct, the faculty member must report the basic facts of your experience to Ms. Alexia Taylor, PVAMU's Title IX Coordinator. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Title IX Coordinator is designated to handle inquiries regarding non-discrimination policies and can assist you with understanding your options and connect you with on- and off-campus resources. The Title IX Coordinator can be reached by phone at 936-261-2123 or in Suite 013 in the A.I. Thomas Administration Building.

Class Attendance Policy (See Catalog for Full Attendance Policy)
Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet.

Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

Student Academic Appeals Process
Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

TECHNICAL CONSIDERATIONS

***Minimum* Recommended Hardware and Software:**
- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

Participants should have a basic proficiency of the following computer skills:
- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

***Netiquette* (online etiquette):**

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

***Technical Support*:**

Students should go to https://mypassword.pvamu.edu/ if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

***Communication Expectations and Standards*:**

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it/they should be copied and pasted to the discussion board.