NOVA SOUTHEASTERN UNIVERSITY
Halmos College of Natural Sciences and Oceanography

PHYS 2360 - General Physics II/Lab

I. Course Information

Course: PHYS 2360 - General Physics II/Lab
Semester Credit Hours: 4.0
Course CRN and Section: 20281 - EV1, 20282 - EV2
Semester and Year: Fall 2017
Course Start and End Dates: 08/21/2017 - 12/10/2017
Building and Room: Parker Building - 313

II. Instructor Information

Professor: Victor H Castro
Email: castvict@nova.edu
Phone: 9542628309

III. Class Schedule and Location

CRN	Day	Date	Time	Location	Building/Room
20281	T	08/22/2017 - 10/03/2017	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Parker Building-313
20281	R	08/24/2017 - 10/05/2017	6:00 PM - 8:30 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20281	R	10/12/2017 - 10/12/2017	6:00 PM - 8:30 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20281	T	10/17/2017 - 11/28/2017	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Parker Building-313
20281	R	10/19/2017 - 11/30/2017	6:00 PM - 8:30 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20281	R	12/07/2017 - 12/07/2017	6:00 PM - 8:00 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20282	W	08/23/2017 - 10/04/2017	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Parker Building-313
20282	R	08/24/2017 - 10/05/2017	6:00 PM - 8:30 PM	Ft Lauderdale/Davie Campus	Parker Building-338

20282	R	10/12/2017 - 10/12/2017	6:00 PM - 8:00 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20282	W	10/18/2017 - 11/29/2017	6:00 PM - 8:45 PM	Ft Lauderdale/Davie Campus	Parker Building-313
20282	R	10/19/2017 - 11/30/2017	6:00 PM - 8:30 PM	Ft Lauderdale/Davie Campus	Parker Building-338
20282	R	12/07/2017 - 12/07/2017	6:00 PM - 8:00 PM	Ft Lauderdale/Davie Campus	Parker Building-338

IV. Course Description

Second of a two-part series covering electricity and magnetism, optics, and modern physics. Includes laboratory sessions. This course has been exempted from the requirements of the Writing Across the Curriculum policy. Prerequisites: PHYS 2350 and either MATH 1250 or MATH 2100 or MATH 2100H. Frequency: Every Fall and Winter.

V. Course Objectives / Learning Outcomes

1) Calculate electric and magnetic fields, forces, and potentials from a given set of charges or currents.
2) Use the basic properties of electromagnetic waves and how they relate to optics to solve related, simple problems.
3) Solve electric circuit problems for both AC and DC circuits containing batteries, inductors, capacitors, and resistors.
4) Use the basic ideas of geometrical and physical optics, such refraction and diffraction to solve simple optical problems.
5) Solve simple problems in special relativity involving energy, momentum, length contraction, time dilation, and velocity composition.
6) Apply elementary ideas from quantum mechanics to simple systems such as the hydrogen atom.

VI. Materials and Resources

Book Url: NSU Book Store

Section Required Texts and Material:

- *Physics: Principles with Applications Plus Mastering Physics with eText-Access Card Pkg*, 7th ed., by Douglas Giancoli, Pearson Prentice Hall Publishing. ISBN-13: 9780321625915.
- If you purchase the textbook only you will then need to purchase an online subscription to Mastering Physics at www.masteringphysics.com.
- A scientific calculator is required and may be used for all assignments and tests. Smartphones, tablets or computers are **not allowed** in any test.

VII. Course Schedule and Topic Outline

Course Schedule:

Lecture Calendar								
Date		Day	Topic		Date		Day	Topic
AUG	22	R	Chapter 16			17	R	Chapter 22
	29	R	Chapter 17			24	R	Chapter 23
SEP	05	R	Chapter 18			31	R	Chapter 24

	12	R	Chapter 19		NOV	07	R	Chapter 26
	19	R	**Exam 1(Chap 16, 17, 18, 19)**			14	R	**Exam 2(Chap 22, 23, 24, 26)**
	26	R	Chapter 20			21	R	Chapter 27
OCT	03	R	Chapter 21			28	R	Chapter 28
	9 – 13		MIDTERM WEEK		DEC	05 – 09		FINALS WEEK (ALL Chapters)

Laboratories Calendar

Week of		Exp	Topic		Week of		Exp	Topic
AUG	28	2.01	Coulomb's Law		OCT	16	2.06	Series RC dc-Circuit
SEP	11	2.02	Electric & Potential Fields		OCT	23	2.07	Magnetic Field of the Earth
SEP	18	2.03	Ohm's Law		OCT	30	2.08	Series LR ac-Circuit
SEP	25	2.04	Kirchhoff's Laws		NOV	06	2.09	Reflection and Refraction
OCT	02	2.05	Wheatstone Bridge		NOV	13	2.10	Thin Lens

VIII. Assessments

Midterm: Day, time, and location: http://www.fcas.nova.edu/coursewizard/
Final exam: Day, time, and location: http://www.fcas.nova.edu/coursewizard/

IX. Grading Criteria

Final Grade:
Grading will be based on homework assignments, lab experiments, 2 in class Exams, 1 midterm test, and a final exam. These are subject to the following weighting distribution and grading scale:

Grading Scale:

Homework	10 %		100 – 94	A		74 – 70	C+
Laboratory	20 %		93 – 90	A–		69 – 65	C
Exam 1	15 %		89 – 85	B+		64 – 60	C–
Midterm	20 %		84 – 80	B		59 – 50	D
Exam 2	15 %		79 – 75	B–		Less than 50	F
Final	20 %						

X. Course Policies

General Policy:

- **Prepare for class**. The first place to look for help is in your textbook. Reading the topics before the class will make easier for you to follow the lectures. Write any questions down and ask them in the next lecture. I also encourage you to go to my office hours.
- **On time attendance** is required at all labs, and exams. Although attendance to lectures is not mandatory, failing to attend will adversely affect your grade. **You are responsible for lecture notes, or any handout material missed**.
- It is **your responsibility** to take all the tests and quizzes, and complete your **homework on time**.

Failure to do so will result in a zero. Make ups are only allowed in **exceptional** circumstances.

- Appropriate classroom behavior is required. Please, **do not be** disrespectful, disruptive, or distractive.
- It is very important that the work you turn in is **yours, and yours alone**. If you copy from any other student or source and submit it as your own work for a grade, you risk **receiving an F in the course**. **Plagiarism in any form is absolutely not tolerated**. Intellectual discussion among students, such as study groups, is acceptable and encouraged. But, no matter what the assignment is, all and every work **must be done, and presented individually**.

XI. University Policies

Students should visit http://www.nova.edu/academic-affairs/nsu-syllabus-policy.html to access additional required college-wide policies. It is your responsibility to access and carefully read these policies to ensure you are fully informed. As a student in this class, you are obligated to follow these college-wide policies in addition to the policies established by your instructor.
The following policies are described on this website:

- Academic misconduct
- Last day to withdraw
- Email policy
- Student course evaluations
- Student responsibility to register
- Student responsibility for course prerequisites

Academic Resources

Nova Southeastern University offers a variety of resources that may aid in student success. Among these resources are:

Accommodations for students with documented disabilities: For more information about ADA policy, services, and procedures, students may call the Office of Student Disability Services at 954-262-7189 or visit http://www.nova.edu/disabilityservices.

Tutoring and testing center:
Students are encouraged to use the free, individualized tutoring services offered by the Tutoring and Testing Center (TTC). TTC provides a supportive atmosphere in which tutors and students work collaboratively on improving students' writing, math and/or science skills. http://www.nova.edu/tutoring-testing/index.html