

 FLORIDA ATLANTIC UNIVERSITY	COURSE CHANGE REQUEST Undergraduate Programs		UUPC Approval <u>2/26/24</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Physics College Science		
Current Course Prefix and Number PHY 2053		Current Course Title College Physics 1	
<i>Syllabus must be attached for ANY changes to current course details. See <u>Template</u>. Please consult and list departments that may be affected by the changes; attach documentation.</i>			
Change title to: Change prefix From: _____ To: _____ Change course number From: _____ To: _____ Change credits* From: _____ To: _____ Change grading From: _____ To: _____ Change WAC/Gordon Rule status** Add <input type="checkbox"/> Remove <input type="checkbox"/> Change General Education Requirements*** Add <input type="checkbox"/> Remove <input type="checkbox"/> <small>*See <u>Definition of a Credit Hour</u>.</small> <small>**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See <u>WAC Guidelines</u>.</small> <small>***GE criteria must be indicated in syllabus and approval attached to this form. See <u>Intellectual Foundations Guidelines</u>.</small>		Change description to: This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world. Change prerequisites/minimum grades to: Change corequisites to: Change registration controls to: Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).	
Effective Term/Year for Changes: Fall 2024		Terminate course? Effective Term/Year for Termination:	
Faculty Contact/Email/Phone Korey Sorge / ksorge@fau.edu / 7-3380			
Approved by Department Chair _____ College Curriculum Chair _____ College Dean _____ UUPC Chair <u>Korey Sorge</u> Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____		Date 01-26-2023 01/26/24 <u>2/1/24</u> <u>2/26/24</u> <u>2/26/24</u>	

Email this form and syllabus to mccuning@fau.edu seven business days before the UUPC meeting.

PHY 2053-001
College Physics 1
MWF 11:00 – 11:50
4 credits

Semester, Year
Prof. XXXXX YYYYY
Office: XXXXX
Office hours: MWF 11-12
Classroom: XXXX
Telephone: 561-297-XXXX
Email: zzzzz@fau.edu



TA name	xxxxxx xxxxxxxxx
Office	xxxxxx
Office hours	MWF xx:xx – xx:xx
Telephone	561-297-xxxx
Email	xxxxxx@fau.edu

Course Description

This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world.

Instructional Method

This is an in-person class. There is no remote option and all exams will be given in person.

Prerequisites/Corequisites

Prerequisite: Minimum grade of "C" in one of the following: MAC 1114 or 1147 or 2233 or 2311

Course Objectives/Student Learning Outcomes

- Students will be able to solve analytical problems describing different types of motion which includes translational, rotational, and simple harmonic motions using various techniques with algebra and trigonometry.
- Students, using algebra and trigonometry, will be able to apply Newton's laws and other conservation laws to solve and analyze various aspects of mechanics.
- Students will be able to identify and relevant information presented in a variety of formats such as mathematical graphs, tables, diagrams, and/or mathematical formalisms.
- Students will be able to solve real world problems using critical skills and knowledge taught in this course.

Course Evaluation Method

This course will be graded on four in-person exams in which the lowest test counts for 25% of the other three and a final exam. The average on the four exams will be 85% of the final grade and the final represents 15% of the final grade.

Course Grading Scale

Below is the grading scale for the class:

Grading

Numerical Grade	Letter Grade
> 91.5	A
89.5 – 91.5	A-
86.5 – 89.5	B+
82.5 – 86.5	B
79.5 – 82.5	B-
76.5 – 79.5	C+
72.5 – 76.5	C
69.5 – 72.5	C-
61.5 -69.5	D
< 61.5	F

A D is needed to pass the class.

Classroom Etiquette Policy

I expect students to pay attention, and not use electronic devices outside of devices used for note taking. I also expect students to come on time and not disrupt the class as well. Students will be warned for failures to observe this and multiple warnings could lead to a student being asked to leave the class.

Policy on the Recording of Lectures

I will record and post all notes associated with the class. Hence, there is no need to record the class and it is not allowed.

Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Required Texts/Readings

There is no required textbook. All notes will be provided and posted on Canvas.

Supplementary/Recommended Readings (if applicable)

- Schaum's Outline – College Physics: https://www.amazon.com/Schaums-Outline-College-Physics-Outlines/dp/1259587398/ref=sr_1_2?crid=30Y4XW3PG1ABD&dchild=1&keywords=schaums+outline+college+physics&qid=1629736964&srefix=schaums+outline+coll%2Caps%2C265&sr=8-2

Course Topical Outline

Week 1 – Preliminary topics and 1-d kinematics, quiz and homework based on week's material

Week 2 – Finish 1-d kinematics, quiz and homework based on week's material

Week 3 – 2-D kinematics, quiz and homework based on week's material

Week 4 – Newton's Laws and applications, quiz and homework based on week's material

Week 5 – Momentum, quiz and homework based on week's material

Week 6 – Work and Energy, quiz and homework based on week's material

Week 7 – Conservation of energy, quiz and homework based on week's material

Week 8 – Rotational energy and moment of inertia, quiz and homework based on week's material

Week 9 – Rotational equations of motion, quiz and homework based on week's material

Week 10 – Torque and gravity, quiz and homework based on week's material

Week 11 – Sound and simple harmonic motion, quiz and homework based on week's material

Week 12 – Fluid Dynamics, quiz and homework based on week's material

Week 13 – Thermodynamics, quiz and homework based on week's material

Week 14 – Test, quiz and homework based on week's material

Science and Natural World Syllabus Description

Intellectual Foundation (General Education) Program Outcomes.

Scientific principles are behind what we find in nature and in natural occurrences. Scientific issues, such as those dealing with stem-cell research, cloning and global warming, are hotly debated by policy makers. Courses that meet this requirement share the goal of seeking to understand patterns and principles behind phenomena and occurrences, both in the inorganic world and in the living world. They typically fall within either the physical sciences (astronomy, physics, chemistry, and the earth sciences) or the biological sciences.

Students who satisfy the Science and the Natural World requirement will be able to:

- Explain important scientific concepts, principles, and paradigms.
- Explain how principles of scientific inquiry and ethical standards are used to develop and investigate research questions.
- Explain the limits of scientific knowledge and of how scientific knowledge changes.
- Critically evaluate scientific claims, arguments, and methodology.

After completion of the associated lab, the student will be able to:

- Demonstrate and explain how experiments are conducted.
- Analyze resulting data and draw appropriate conclusions from such data.