

Start/End Dates

Meeting Days

Meeting Times

Location

Instructor

Course Topic (if applicable)

PHYSICS**Astronomy**

ASTRONY 112 INTRODUCTION TO ASTRONOMY ... An examination of concepts regarding the organization of the universe. The solar system, astronomical principles and instruments, stellar evolution and galaxies are among topics covered. Activities include field trips, observations of the night sky and of the sun with telescopes, and laboratory work. Four one-hour lectures and one two-hour laboratory/observation period per week. There are two required evening observation sessions during the semester.

COREQ: MATH 141 OR WAIVER

#3434	Section 01L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	R	09:30 AM - 11:30 AM	UH0050	Juliana T Constantinescu		
	01/19-05/19	MTWR	02:15 PM - 03:05 PM	UH0141	Paul M Rybski		
#3438	Section 02L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	R	03:30 PM - 05:30 PM	UH0050	Juliana T Constantinescu		
	01/19-05/19	MTWR	02:15 PM - 03:05 PM	UH0141	Paul M Rybski		
#3440	Section 03L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	M	08:50 AM - 10:50 AM	UH0050	Juliana T Constantinescu		
	01/19-05/19	MW	03:20 PM - 05:00 PM	UH0141	Juliana T Constantinescu		
#4799	Section 04L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	M	12:05 PM - 02:05 PM	UH0050	Juliana T Constantinescu		
	01/19-05/19	MW	03:20 PM - 05:00 PM	UH0141	Juliana T Constantinescu		

Physics

PHYSICS 100 ENERGY ... An examination of energy; its nature, the forms in which it appears, its transformation, current and future sources, and energy issues faced by an informed electorate. Three one-hour lectures per week.

#5360	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)				
	01/19-05/19	W	06:15 PM - 08:45 PM	UH0142	Abdelkrim Boukahil		

PHYSICS 130 PHYSICS FOUNDATIONS ... This course will explore topics in classical physics (motion, heat, sound, electricity, magnetism, and light) and modern physics (atomic structure, quantum mechanics, and relativity) with an emphasis on how the principles explain and predict phenomena we observe every day. Four one-hour lectures and one two-hour laboratory per week.

COREQ: MATH 141 OR CONSENT OF INSTRUCTOR

#3384	Section 01L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	W	08:50 AM - 10:50 AM	UH0058	Jalal M Nawash		
	01/19-05/19	MF	08:50 AM - 09:40 AM	UH0141	Robert Benjamin		
	01/19-05/19	TR	08:25 AM - 09:15 AM	UH0141	Robert Benjamin		
#3424	Section 02L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	W	01:10 PM - 03:40 PM	UH0058	Jalal M Nawash		
	01/19-05/19	MF	08:50 AM - 09:40 AM	UH0141	Robert Benjamin		
	01/19-05/19	TR	08:25 AM - 09:15 AM	UH0141	Robert Benjamin		

PHYSICS 140 PRINCIPLES OF PHYSICS I ... An algebra-based course in classical mechanics at the introductory level. The content covers kinematics, Newton's laws, conservation laws, oscillations and waves, applications to fluids and elasticity, and thermodynamics and kinetic theory. Applications to the life and health sciences are emphasized, and essential MCAT subject matter is included. Basic understanding of trigonometry and the manipulation of vectors is necessary. Students with adequate mathematical preparation may wish to consider taking the PHYSICS 180 series. Four one-hour lectures and one three-hour laboratory per week.

COREQ: MATH 152

#4802	Section 01L	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	W	03:15 PM - 05:15 PM	UH0050	Abdelkrim Boukahil		
	01/19-05/19	TR	09:30 AM - 10:45 AM	UH0141	Abdelkrim Boukahil		
	01/19-05/19	W	02:15 PM - 03:05 PM	UH0050	Abdelkrim Boukahil		

PHYSICS 141 PRINCIPLES OF PHYSICS II ... An algebra-based course in electricity and magnetism, circuits, electromagnetic waves, optics and an introduction to modern physics. Applications to the life and health sciences are emphasized, and essential MCAT subject matter is included. Basic understanding of trigonometry and the manipulation of vectors is necessary. Students with adequate mathematical preparation may wish to consider taking the PHYSICS 180 series. Four One-hour lectures and one three-hour laboratory per week.

PREREQ: PHYSICS 140

#3428	Section 01	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	T	09:30 AM - 12:30 PM	UH0050	Jalal M Nawash		
	01/19-05/19	MWF	11:00 AM - 11:50 AM	UH0141	Jalal M Nawash		
#3406	Section 02	[units: 5]	Gen Ed Laboratory (GL)				
	01/19-05/19	T	02:15 PM - 05:15 PM	UH0050	Jalal M Nawash		
	01/19-05/19	MWF	11:00 AM - 11:50 AM	UH0141	Jalal M Nawash		

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PHYSICS 150 FROM EINSTEIN TO STAR TREK ... This introductory survey course will focus on areas of modern physics that are frequently discussed but often misunderstood. The theories of Einstein and other physicists will be used to examine science fiction devices such as time machines, warp drives, and mass transporters. Integrated throughout will be a discussion of what are science, science fiction, and pseudo-science. Not applicable toward any physics major or minor. Three hours of lecture a week.

COREQ: MATH 140 OR 141 OR WAIVER

#4804 Section 01C [units: 3] Gen Ed Math/Natural Sciences (GM)
01/19-05/19 T 06:15 PM - 08:45 PM UH0141 Juliana T Constantinescu

PHYSICS 181 PHYSICS FOR SCIENTISTS AND ENGINEERS II ... A course in introductory physics including a mathematically rigorous analysis of electricity and magnetism, light and optics, and modern physics using calculus. For majors and minors in physics, engineering, chemistry, and mathematics. Four one-hour lectures and one three-hour lab per week.

PREREQ: PHYSICS 180 OR CONSENT OF INSTRUCTOR COREQ: MATH 254

#3404 Section 01L [units: 5] Gen Ed Laboratory (GL)
01/19-05/19 T 09:30 AM - 12:30 PM UH0058 Robert Benjamin
01/19-05/19 MTRF 01:10 PM - 02:00 PM UH0141 Robert Benjamin
#3410 Section 02L [units: 5] Gen Ed Laboratory (GL)
01/19-05/19 T 02:15 PM - 05:15 PM UH0058 Robert Benjamin
01/19-05/19 MTRF 01:10 PM - 02:00 PM UH0141 Robert Benjamin

PHYSICS 212 PHYSICS FOR ELEMENTARY TEACHERS ... This course is a one-semester introduction to physics with curriculum and instruction designed as an activity-based hands-on course for K-8 elementary education students and open to all education majors. The course emphasizes a student-oriented pedagogy in order to develop various physics concepts and the nature of science. Topics covered include motion, forces, energy, light, heat, electricity, and magnetism.

PREREQ: MATH 141 AND RESTRICTED TO STUDENTS WITH BSE PROGRAM

#3420 Section 01C [units: 4] Gen Ed Laboratory (GL)
01/19-05/19 MW 08:25 AM - 10:45 AM UH0166 Steven C Sahyun

PHYSICS 240 PHYSICS OF SOUND AND MUSIC ... A descriptive course that deals with various properties of sound, the generation of sound by traditional musical instruments and the electronic production and reproduction of sound. The physical process of hearing and the acoustical properties of rooms are also included. Three one-hour lecture periods per week.

COREQ: MATH 140 OR MATH 141

#3390 Section 01C [units: 3] Gen Ed Math/Natural Sciences (GM)
01/19-05/19 TR 12:30 PM - 01:45 PM UH0166 Juliana T Constantinescu

PHYSICS 303 MICROPROCESSOR LABORATORY ... Laboratory experience in microprocessor addressing, digital logic circuits, microcomputer input and output techniques, digital to analog and analog to digital interfacing and device control by microcomputers. This course will not satisfy the laboratory work requirements for the physics major; the credit will count toward the major.

COREQ: COMPSCI 302 OR PREREQ: COMPSCI 171 AND PHYSICS 175 OR 163.

#4805 Section 01L [units: 2]
01/19-05/19 MW 05:00 PM - 07:25 PM UH0141 Paul M Rybski

PHYSICS 310 MECHANICS - DYNAMICS ... A study of classical mechanics. Topics to be covered will include vector calculus techniques, dynamics of particles and systems and central force systems. Required of all majors and minors in physics. Three one-hour lectures per week.

PREREQ: PHYSICS 324

#3388 Section 01C [units: 3]
01/19-05/19 TR 11:00 AM - 12:15 PM UH0141 Abdelkrim Boukahil

PHYSICS 360 OPTICS ... This course provides an introductory study of optical phenomena. Geometrical and physical optics beginning with a mathematical treatment of light waves and their interaction with materials. Topics also include interference diffraction, spectroscopy and spectroscopic instruments, polarization, light sources and detectors, lasers, holography, and some topics in modern optics. Three one-hour lectures and one three-hour laboratory per week.

PREREQ: PHYSICS 324

#4807 Section 01L [units: 4]
01/19-05/19 TR 12:30 PM - 02:00 PM UH0057 Steven C Sahyun
01/19-05/19 TR 09:30 AM - 10:45 AM UH0166 Steven C Sahyun

PHYSICS 425 QUANTUM MECHANICS ... This course will explore the tools and postulates of Quantum Mechanics. Topics will include one and three-dimensional problems, angular momentum, as well as approximation methods such as time independent perturbation theory, and Wentzel-Kramers-Brillouin (WKB) methods. Three one-hour lectures per week.

PREREQ: PHYSICS 324

#3412 Section 01 [units: 3]
01/19-05/19 TR 03:45 PM - 05:00 PM UH0141 Abdelkrim Boukahil

PHYSICS 494 PHYSICS SEMINAR ... Variable topics. Group activity. An advanced course of study in a defined subject matter area emphasizing a small group in intense study with a faculty member. Repeatable.

PREREQ: SENIOR STATUS

#3414 Section 01 [units: 1] Instructor Consent
01/19-05/19 W 12:05 PM - 12:55 PM UH0238 Abdelkrim Boukahil MATHEMATICAL PHYSICS II

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PHYSCS 496 SPECIAL STUDIES ... Variable topics. Group activity. Not offered regularly in the curriculum but offered on topics selected on the basis of timeliness, need, and interest, and generally in the format of regularly scheduled Catalog offerings. Repeatable for a maximum of 3 credits in major or minor in physics.

PREREQ: MAJOR OR MINOR IN PHYSICS, JUNIOR OR SENIOR STANDING AND CONSENT OF INSTRUCTOR

#4809 Section 01C [units: 2]

PREREQ: PHYSCS 181 OR PHYSCS 141 OR INSTRUCTOR CONSENT; COREQ: PHYSCS 303

01/19-05/19 MW 12:05 PM - 12:55 PM UH0141 Paul M Rybski DIG PRIN & STATE CONTROL

PHYSCS 498 INDEPENDENT STUDY ... Study of a selected topic or topics under the direction of a faculty member. Repeatable for a maximum of 3 credits in major or minor in physics.

PREREQ: JUNIOR/SENIOR STATUS OR CONSENT OF INSTRUCTOR

#3408 Section 01 [units: 1-3]

01/19-05/19 Arranged Arranged

Robert Benjamin

Dept. Consent

#3394 Section 02 [units: 1-3]

01/19-05/19 Arranged Arranged

Abdelkrim Boukahil

Dept. Consent

#3398 Section 04 [units: 1-3]

01/19-05/19 Arranged Arranged

Paul M Rybski

Dept. Consent

#3400 Section 05 [units: 1-3]

01/19-05/19 Arranged Arranged

Steven C Sahyun

Dept. Consent

PHYSCS 498R INDEPENDENT STUDENT - UNDERGRADUATE RESEARCH ... Study of a selected topic or topics under the direction of a faculty member. Repeatable for a maximum of 3 credits in major or minor in physics.

PREREQ: JUNIOR/SENIOR STATUS OR CONSENT OF INSTRUCTOR

#5482 Section 01 [units: 1-3]

01/19-05/19 Arranged Arranged

Robert Benjamin

Dept. Consent

#5483 Section 02 [units: 1-3]

01/19-05/19 Arranged Arranged

Abdelkrim Boukahil

Dept. Consent

#5484 Section 03 [units: 1-3]

01/19-05/19 Arranged Arranged

Paul M Rybski

Dept. Consent

#5485 Section 04 [units: 1-3]

01/19-05/19 Arranged Arranged

Steven C Sahyun

Dept. Consent