

Start/End Dates

Meeting Days

Meeting Times

Location

Instructor

Course Topic (if applicable)

PHYSICS**Astronomy**

ASTRONOMY 112 INTRODUCTION TO ASTRONOMY (GL) ... 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

#3548	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	M	09:00 AM - 10:50 AM	UH0050	Juliana T Constantinescu	
	01/19-05/17	MTWR	02:00 PM - 02:50 PM	UH0141	Juliana T Constantinescu	
#3549	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	M	11:00 AM - 12:50 PM	UH0050	Juliana T Constantinescu	
	01/19-05/17	MTWR	02:00 PM - 02:50 PM	UH0141	Juliana T Constantinescu	

ASTRONOMY 114 DESCRIPTIVE ASTRONOMY (GM) ... A non-laboratory course that introduces the basic aspects of astronomy, including cultural and historical considerations. The study of galaxies, stars, as well as our solar system is included. Observational activities may be included as integral parts of the course. Three one-hour lectures per week for the regular semester.

COREQ: MATH 141 OR WAIVER

#3550	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)	NOTE: This course will be taught online using D2L. An addition fee of \$150 will be assessed.		
	01/19-05/17	Arranged	Arranged	WEB BASED	Juliana T Constantinescu	

Physics

PHYSICS 130 PHYSICS FOUNDATIONS (GL) ... 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

#3567	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	W	09:00 AM - 10:50 AM	UH0058	Ozgur Yavuzcetin	
	01/19-05/17	MTWR	08:00 AM - 08:50 AM	UH0141	Ozgur Yavuzcetin	
#3568	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	W	11:00 AM - 12:50 PM	UH0058	Ozgur Yavuzcetin	
	01/19-05/17	MTWR	08:00 AM - 08:50 AM	UH0141	Ozgur Yavuzcetin	
#3569	Section 03	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	W	01:00 PM - 02:50 PM	UH0058	Ozgur Yavuzcetin	
	01/19-05/17	MTWR	08:00 AM - 08:50 AM	UH0141	Ozgur Yavuzcetin	

PHYSICS 140 PRINCIPLES OF PHYSICS I (GL) ... 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

#3521	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	W	08:00 AM - 08:50 AM	UH0050	Abdelkrim Boukahil	
	01/19-05/17	W	09:00 AM - 10:50 AM	UH0050	Abdelkrim Boukahil	
	01/19-05/17	TR	11:00 AM - 12:15 PM	UH0141	Abdelkrim Boukahil	
#3543	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	W	12:00 PM - 12:50 PM	UH0050	Abdelkrim Boukahil	
	01/19-05/17	W	01:00 PM - 02:50 PM	UH0050	Abdelkrim Boukahil	
	01/19-05/17	TR	11:00 AM - 12:15 PM	UH0141	Abdelkrim Boukahil	

PHYSICS 141 PRINCIPLES OF PHYSICS II (GL) ... 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

#3552	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	01/19-05/17	T	08:00 AM - 08:50 AM	UH0050	Jalal M Nawash	
	01/19-05/17	T	09:00 AM - 10:50 AM	UH0050	Jalal M Nawash	
	01/19-05/17	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	

<i>Start/End Dates</i>	<i>Meeting Days</i>	<i>Meeting Times</i>	<i>Location</i>	<i>Instructor</i>	<i>Course Topic (if applicable)</i>
#3553	Section 02	[units: 5]	Gen Ed Laboratory (GL)		
01/19-05/17	T	11:00 AM - 12:50 PM	UH0050	Jalal M Nawash	
01/19-05/17	T	01:00 PM - 01:50 PM	UH0050	Jalal M Nawash	
01/19-05/17	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	
#3554	Section 03	[units: 5]	Gen Ed Laboratory (GL)		
01/19-05/17	T	02:00 PM - 02:50 PM	UH0050	Jalal M Nawash	
01/19-05/17	T	03:00 PM - 04:50 PM	UH0050	Jalal M Nawash	
01/19-05/17	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	

PHYSICS 181 PHYSICS FOR SCIENTISTS AND ENGINEERS II (GL) ... 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

#3506	Section 01	[units: 5]	Gen Ed Laboratory (GL)		
01/19-05/17	T	08:00 AM - 10:50 AM	UH0058	Robert Benjamin	
01/19-05/17	MWF	01:00 PM - 01:50 PM	UH0141	Robert Benjamin	
01/19-05/17	F	02:00 PM - 02:50 PM	UH0141	Robert Benjamin	
#3510	Section 02	[units: 5]	Gen Ed Laboratory (GL)		
01/19-05/17	T	02:00 PM - 04:50 PM	UH0058	Robert Benjamin	
01/19-05/17	MWF	01:00 PM - 01:50 PM	UH0141	Robert Benjamin	
01/19-05/17	F	02:00 PM - 02:50 PM	UH0141	Robert Benjamin	

PHYSICS 212 PHYSICS FOR ELEMENTARY TEACHERS (GL) ... 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

#3564	Section 01	[units: 4]	Gen Ed Laboratory (GL)		
01/19-05/17	MWF	08:00 AM - 09:45 AM	UH0166	Steven C Sahyun	
#3565	Section 02	[units: 4]	Gen Ed Laboratory (GL)		
01/19-05/17	MWF	10:00 AM - 11:45 AM	UH0166	Steven C Sahyun	

PHYSICS 240 PHYSICS OF SOUND AND MUSIC (GM) ... 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

#3546	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)		
01/19-05/17	TR	12:30 PM - 01:45 PM	UH0166	Juliana T Constantinescu	

PHYSICS 291 PHYSICS RECITATIONS II ... Topics include partial derivatives, increments, and total derivatives: application to force and potential energy, linear momentum, angular momentum, and the dynamics of systems, integrals in two and three dimensions: application to the dynamics of rigid bodies including rotations and forces in equilibrium. One-hour lecture per week.

PREREQ: PHYSICS 290 OR CONSENT OF INSTRUCTOR

#3525	Section 01	[units: 1]			
01/19-05/17	W	03:00 PM - 03:50 PM	UH0166	Abdelkrim Boukahil	
S/NC Grading Basis Only					

PHYSICS 310 MECHANICS - DYNAMICS ... A study of classical mechanics. Topics will include Newtonian mechanics, Lagrangean and Hamiltonian formalisms, symmetry principles, conservation laws, oscillations, central force and two-body problems, collisions and scattering cross-sections, motion in non-inertial reference frames, and rigid body motion. Required of all majors and minors in physics. Three one-hour lectures per week.

PREREQ: PHYSICS 324 WITH A GRADE OF C OR BETTER

#3533	Section 01	[units: 3]			
01/19-05/17	TR	09:30 AM - 10:45 AM	UH0141	Abdelkrim Boukahil	

PHYSICS 325 CLASSICAL ELECTROMAGNETISM ... A study of the electrostatic field, electric multipoles, dielectrics, special methods in electrostatics, the magnetic field, magnetic materials, time-varying fields, conservation laws, and electromagnetic waves. Three one-hour lectures per week.

PREREQ: PHYSICS 324

#3534	Section 01	[units: 3]			
01/19-05/17	TR	02:00 PM - 03:15 PM	UH0166	Abdelkrim Boukahil	

PHYSICS 330 ANALOG AND DIGITAL ELECTRONICS ... An introductory course in electronics with emphasis on solid state devices, diode and amplifier circuits, waveform generation, operational amplifiers, digital circuitry and microcomputer applications to physical measurement. Three one-hour lectures per week.

PREREQ: PHYSICS 221

#3560	Section 01	[units: 3]			
01/19-05/17	MW	05:00 PM - 06:15 PM	UH0141	Paul M Rybski	

Start/End Dates Meeting Days Meeting Times Location Instructor Course Topic (if applicable)

PHYSCS 331 ANALOG AND DIGITAL ELECTRONICS LABORATORY ... A laboratory course in electronics with emphasis on solid state devices, diode and amplifier circuits, waveform generation, analog computer circuitry, digital circuitry and microcomputer applications to physical measurement. One two-hour laboratory per week.

COREQ: PHYSCS 330

#3562	Section 01	[units: 1]				
	01/19-05/17	T	03:30 PM - 06:20 PM	UH0053	Paul M Rybski	
#3563	Section 02	[units: 1]				
	01/19-05/17	R	03:30 PM - 06:20 PM	UH0053	Paul M Rybski	

PHYSCS 344 MODERN PHYSICS ... Topics covered include relativity, elementary quantum physics, atomic and molecular structure, elementary nuclear physics and fundamental particles. Laboratory experiments complement material presented in lectures. Three one-hour lectures and one three-hour laboratory per week.

PREREQ: PHYSCS 181, OR PHYSCS 141 AND MATH 254

#3559	Section 01	[units: 4]				
	01/19-05/17	M	02:00 PM - 04:50 PM	UH0061	Jalal M Nawash	
	01/19-05/17	MW	09:30 AM - 10:45 AM	UH0141	Jalal M Nawash	

PHYSCS 493 PHYSICS COOPERATIVE EDUCATION ... The course gives the student an opportunity to intersperse full time study with full time employment. The student will be interviewed by a potential employer identified by the Physics Department. If accepted as an employee, the student may work from one to four terms. A work term is defined as a semester or a summer of employment. No more than two credits may be counted towards the Physics Major. A written report is required.

PREREQ: PHYSCS 181

#4447	Section 01	[units: 1]				
	01/19-05/17	Arranged	Arranged		Ozgur Yavuzcetin	
#4631	Section 02	[units: 1]				
	01/19-05/17	Arranged	Arranged		Robert Benjamin	

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

#3737	Section 01	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Robert Benjamin	
#3738	Section 02	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Abdelkrim Boukahil	
#3739	Section 03	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Juliana T Constantinescu	
#3740	Section 04	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Jalal M Nawash	
#3741	Section 05	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Paul M Rybski	
#3742	Section 06	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Steven C Sahyun	
#3743	Section 07	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Ozgur Yavuzcetin	

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

#3744	Section 01	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Robert Benjamin	
#3745	Section 02	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Abdelkrim Boukahil	
#3746	Section 03	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Juliana T Constantinescu	
#3747	Section 04	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Jalal M Nawash	
#3748	Section 05	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Paul M Rybski	
#3749	Section 06	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Steven C Sahyun	
#3750	Section 07	[units: 1-3]				Dept. Consent
	01/19-05/17	Arranged	Arranged		Ozgur Yavuzcetin	