

Start/End Dates

Meeting Days

Meeting Times

Location

Instructor

Course Topic (if applicable)

**PHYSICS****Astronomy**

**ASTRONOMY 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**

#4107	Section 01L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	T		02:15 PM - 04:10 PM	UH0050	Paul M Rybski	
01/22-05/22	MTWR		12:05 PM - 12:55 PM	UH0141	Paul M Rybski	
#4110	Section 02L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	M		08:50 AM - 10:45 AM	UH0050	Juliana T Constantinescu	
01/22-05/22	MTWR		11:00 AM - 11:50 AM	UH0141	Juliana T Constantinescu	
#4111	Section 03L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	M		02:15 PM - 04:10 PM	UH0050	Juliana T Constantinescu	
01/22-05/22	MTWR		11:00 AM - 11:50 AM	UH0141	Juliana T Constantinescu	

**ASTRONOMY 114 DESCRIPTIVE ASTRONOMY ...** 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 and field trips may be included as integral parts of the course. Three one-hour lectures per week.

**COREQ: MATH 141 OR WAIVER**

#4113	Section 01C	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
01/22-05/22	TR		09:30 AM - 10:45 AM	UH0141	Juliana T Constantinescu	

**ASTRONOMY 498 INDEPENDENT STUDY ...** Study of a selected topic or topics under the direction of a faculty member. Repeatable. Department Consent required.

#4872	Section 01	[units: 1-3]				Dept. Consent
01/22-05/22	Arranged	Arranged			Robert Benjamin	
#4873	Section 02	[units: 1-3]				Dept. Consent
01/22-05/22	Arranged	Arranged			Juliana T Constantinescu	
#4874	Section 03	[units: 1-3]				Dept. Consent
01/22-05/22	Arranged	Arranged			Paul M Rybski	

**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.

**COREQ: MATH 141 OR 140 OR WAIVER**

#4094	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
01/22-05/22	TR		02:15 PM - 03:30 PM	UH0141	Juliana T Constantinescu	

**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 WAIVER**

#3013	Section 01L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	M		11:00 AM - 12:50 PM	UH0058	Robert Benjamin	
01/22-05/22	M		07:45 AM - 09:40 AM	UH0141	Adam L Tregre	
01/22-05/22	WF		08:50 AM - 09:40 AM	UH0141	Adam L Tregre	

**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**

#4104	Section 01L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	W		08:50 AM - 11:50 AM	UH0050	Abdelkrim Boukahil	
01/22-05/22	TR		08:00 AM - 09:15 AM	UH0141	Abdelkrim Boukahil	
01/22-05/22	W		07:45 AM - 08:35 AM	UH0141	Abdelkrim Boukahil	
#4105	Section 02L	[units: 5]	Gen Ed Laboratory (GL)			
01/22-05/22	W		12:05 PM - 03:05 PM	UH0050	Abdelkrim Boukahil	
01/22-05/22	TR		08:00 AM - 09:15 AM	UH0141	Abdelkrim Boukahil	
01/22-05/22	W		07:45 AM - 08:35 AM	UH0141	Abdelkrim Boukahil	

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**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**

#4095	Section 01L	[units: 5]	Gen Ed Laboratory (GL)			
	01/22-05/22	W	02:15 PM - 05:15 PM	UH0058	Adam L Tregre	
	01/22-05/22	MTWF	01:10 PM - 02:00 PM	UH0141	Robert Benjamin	
#4928	Section 02L	[units: 5]	Gen Ed Laboratory (GL)			
	01/22-05/22	W	09:55 AM - 12:55 PM	UH0058	Adam L Tregre	
	01/22-05/22	MTWF	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**

#3033	Section 01	[units: 4]	Gen Ed Laboratory (GL)			
	01/22-05/22	MW	03:20 PM - 05:40 PM	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.

#3027	Section 01C	[units: 3]	Gen Ed Math/Natural Sciences (GM)			
	01/22-05/22	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.**

#4096	Section 01L	[units: 2]				
	01/22-05/22	MW	04:50 PM - 06:50 PM	UH0053	Paul M Rybski	

**PHYSICS 310 MECHANICS I ...** 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: MATH 254 AND PHYSICS 174 AND PHYSICS 175 OR PHYSICS 162 AND PHYSICS 163**

#3025	Section 01C	[units: 3]				
	01/22-05/22	TR	11:00 AM - 12:15 PM	UH0238	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**

#4097	Section 01C	[units: 3]				
	01/22-05/22	TR	09:30 AM - 10:45 AM	UH0238	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**

#4099	Section 01L	[units: 4]				
	01/22-05/22	T	12:30 PM - 03:30 PM	UH0057	Steven C Sahyun	
	01/22-05/22	T	12:30 PM - 03:30 PM	UH0061	Steven C Sahyun	
	01/22-05/22	MWF	09:55 AM - 10:45 AM	UH0166	Steven C Sahyun	

**PHYSICS 489 PHYSICS SENIOR SEMINAR ...** The course will train students in making scientific presentations, summarize the concepts and methods taught in the physics major curriculum, and prepare them for the Physics Major Field Test as the final exam in the course. Students will become familiar with physics literature and learn to write abstracts and project proposals. The will demonstrate proper methods of verbal and visual presentation by delivering a graded series of talks, concluding with a satisfactory colloquium on a physics topic. Two one-hour sessions a week.

**PREREQ: SENIOR LEVEL PHYSICS MAJOR**

#3023	Section 01	[units: 2]				
	01/22-05/22	MW	08:50 AM - 09:40 AM	UH0166	Robert Benjamin	

**PHYSICS 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**

#4155	Section 01C	[units: 2]				
	PREREQ: PHYSICS 174, PHYSICS 162 AND PHYSICS 163 OR CONSENT OF INSTRUCTOR. COREQ: PHYSICS 303					
	01/22-05/22	MW	03:20 PM - 04:10 PM	UH0141	Paul M Rybski	DIGITAL PRINCIPLES & STATE CONT

