

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

#3825	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	R	09:00 AM - 10:50 AM	UH0050	Juliana T Constantinescu	
	09/07-12/23	MTWR	03:00 PM - 03:50 PM	UH0141	Juliana T Constantinescu	
#3826	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	R	04:00 PM - 05:50 PM	UH0050	Juliana T Constantinescu	
	09/07-12/23	MTWR	03:00 PM - 03:50 PM	UH0141	Juliana T Constantinescu	
#3828	Section 03	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	M	04:00 PM - 05:50 PM	UH0050	Juliana T Constantinescu	
	09/07-12/23	MTWR	03:00 PM - 03:50 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

#3829 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM) NOTE: This course will be taught using Desire2Learn. A short while before class, information will be sent to each student's UWW email address. Required additional fee of \$150 will be assessed for this class.

	09/07-12/23	Arranged	Arranged	WEB BASED	Juliana T Constantinescu	
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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

#3855	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	R	09:00 AM - 10:50 AM	UH0058	Ozgur Yavuzcetin	
	09/07-12/23	MTWR	08:00 AM - 08:50 AM	UH0141	Ozgur Yavuzcetin	
#3856	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	R	11:00 AM - 12:50 PM	UH0058	Ozgur Yavuzcetin	
	09/07-12/23	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

#3860	Section 01	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	T	08:00 AM - 08:50 AM	UH0050	Jalal M Nawash	
	09/07-12/23	T	09:00 AM - 10:50 AM	UH0050	Jalal M Nawash	
	09/07-12/23	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	
#3862	Section 02	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	T	11:00 AM - 11:50 AM	UH0050	Jalal M Nawash	
	09/07-12/23	T	12:00 PM - 01:50 PM	UH0050	Jalal M Nawash	
	09/07-12/23	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	
#3864	Section 03	[units: 5]	Gen Ed Laboratory (GL)			
	09/07-12/23	T	02:00 PM - 02:50 PM	UH0050	Jalal M Nawash	
	09/07-12/23	T	03:00 PM - 04:50 PM	UH0050	Jalal M Nawash	
	09/07-12/23	MW	11:00 AM - 12:15 PM	UH0141	Jalal M Nawash	

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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

#3867	Section 01	[units: 5]	Gen Ed Laboratory (GL)				
09/07-12/23	W	08:00 AM - 08:50 AM	UH0050	Abdelkrim Boukahil			
09/07-12/23	W	09:00 AM - 10:50 AM	UH0050	Abdelkrim Boukahil			
09/07-12/23	TR	11:00 AM - 12:15 PM	UH0141	Abdelkrim Boukahil			
#3869	Section 02	[units: 5]	Gen Ed Laboratory (GL)				
09/07-12/23	W	12:00 PM - 12:50 PM	UH0050	Abdelkrim Boukahil			
09/07-12/23	W	01:00 PM - 02:50 PM	UH0050	Abdelkrim Boukahil			
09/07-12/23	TR	11:00 AM - 12:15 PM	UH0141	Abdelkrim Boukahil			

PHYSICS 180 PHYSICS FOR SCIENTISTS AND ENGINEERS I (GL) ... A lecture course in introductory physics including a mathematically rigorous analysis of mechanics, vibrations, wave motion, and thermodynamics using calculus. For majors and minors in physics, engineering, chemistry, mathematics. Four one-hour lectures and one three-hour lab per week. High school calculus recommended.

COREQ: MATH 253

#3873	Section 01	[units: 5]	Gen Ed Laboratory (GL)				
09/07-12/23	T	08:00 AM - 10:50 AM	UH0058	Robert Benjamin			
09/07-12/23	MTWF	01:00 PM - 01:50 PM	UH0141	Robert Benjamin			
#3874	Section 02	[units: 5]	Gen Ed Laboratory (GL)				
09/07-12/23	T	02:00 PM - 04:50 PM	UH0058	Robert Benjamin			
09/07-12/23	MTWF	01:00 PM - 01:50 PM	UH0141	Robert Benjamin			

PHYSICS 190 FRONTIERS OF ENGINEERING AND PHYSICS ... An introduction to career tracks and career opportunities in engineering and physics. This course will feature readings on different career possibilities in engineering and physics and visiting lectures by practicing physicists and engineers. Professional skills, identification of career tracks, and scientific and technical communication will be emphasized. One hour lecture per week.

#3875	Section 01	[units: 1]					
09/07-12/23	F	12:00 PM - 12:50 PM	UH0140	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

#3876	Section 01	[units: 4]	Gen Ed Laboratory (GL)				
09/07-12/23	MWF	10:00 AM - 11:45 AM	UH0166	Steven C Sahyun			

PHYSICS 221 INTERMEDIATE LABORATORY ... A laboratory course concentrating on techniques of recording, interpretation of, and reporting experimental data. Extensive use will be made of computers in data processing. Topics covered include data acquisition and the recording of data, error analysis, numerical analysis, graphing techniques, computational tools and report writing. Two two-hour laboratories per week.

PREREQ: PHYSICS 181, OR PHYSICS 141 AND MATH 254

#3877	Section 01	[units: 2]					
09/07-12/23	TR	11:00 AM - 12:50 PM	UH0053	Paul M Rybski			
#3878	Section 02	[units: 2]					
09/07-12/23	TR	04:00 PM - 05:50 PM	UH0053	Paul M Rybski			

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

#3879	Section 01	[units: 3]	Gen Ed Math/Natural Sciences (GM)				
09/07-12/23	TR	12:30 PM - 01:45 PM	UH0166	Juliana T Constantinescu			

PHYSICS 290 PHYSICS RECITATIONS I ... Topics include, limits, increments and infinitesimals and their applications to physical problems, differentiation and differentials in physics, integration as anti-differentiation and integration of higher derivatives (application to kinematics in one dimension), vector and coordinate frames: application to kinematics in two and three dimensions, definite integrals and the integral as an area: application to mechanical energy and work. One-hour lecture per week.

COREQ: MATH 253 OR CONSENT OF INSTRUCTOR

#3880	Section 01	[units: 1]					
09/07-12/23	R	01:00 PM - 01:50 PM	UH0140	Abdelkrim Boukahil			
S/NC Grading Basis Only							

PHYSICS 305 MECHANICS - STATICS ... A study of forces on rigid bodies in equilibrium. Topics include force systems, equilibrium, distributed forces, structures, friction, internal forces, centroids and moments of inertia. This course also introduces notations and operations associated with tensor calculus.

PREREQ: PHYSICS 181 OR PHYSICS 141 AND MATH 254

#3881	Section 01	[units: 3]					
09/07-12/23	MW	09:30 AM - 10:45 AM	UH0141	Juliana T Constantinescu			

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PHYSCS 324 METHODS OF THEORETICAL PHYSICS ... Topics covered include methods of theoretical physics, vector analysis, differential equations of mathematical physics, analytic functions and integration in the complex plane, Laplace transforms, Fourier series, Fourier transforms, and their applications in physics. Three one hour lectures per week.

PREREQ: PHYSCS 181, OR PHYSCS 141 AND MATH 254

#3882 Section 01 [units: 3]

09/07-12/23 TR 09:30 AM - 10:45 AM UH0141 Abdelkrim Boukahil

PHYSCS 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: PHYSCS 324

#3889 Section 01 [units: 4]

09/07-12/23 F 01:00 PM - 03:50 PM UH0057 Steven C Sahyun

09/07-12/23 MW 02:00 PM - 03:15 PM UH0166 Steven C Sahyun

PHYSCS 364 THERMAL PHYSICS ... A study of the Laws of Thermodynamics and Statistical Mechanics. Thermodynamic topics include potentials, equilibrium, phase transitions and critical phenomena with applications to gasses, liquids and solids. Statistical Mechanics topics include Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein Statistics. Three one-hour lectures per week.

PREREQ: PHYSCS 324 WITH A C OR BETTER AND EITHER PHYSCS 344 OR PHYSCS 425

#3891 Section 01 [units: 3]

09/07-12/23 MW 08:00 AM - 09:15 AM UH0238 Robert Benjamin

PHYSCS 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: PHYSCS 305 AND PHYSCS 344 OR CONSENT OF DEPARTMENT

#3892 Section 01 [units: 2]

09/07-12/23 MW 01:00 PM - 01:50 PM UH0238 Ozgur Yavuzcetin

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

#3949 Section 01 [units: 1-3]

09/07-12/23 Arranged Arranged Robert Benjamin

Dept. Consent

#3951 Section 02 [units: 1-3]

09/07-12/23 Arranged Arranged Abdelkrim Boukahil

Dept. Consent

#3952 Section 03 [units: 1-3]

09/07-12/23 Arranged Arranged Juliana T Constantinescu

Dept. Consent

#3953 Section 04 [units: 1-3]

09/07-12/23 Arranged Arranged Jalal M Nawash

Dept. Consent

#3954 Section 05 [units: 1-3]

09/07-12/23 Arranged Arranged Paul M Rybski

Dept. Consent

#3955 Section 06 [units: 1-3]

09/07-12/23 Arranged Arranged Steven C Sahyun

Dept. Consent

#3950 Section 07 [units: 1-3]

09/07-12/23 Arranged Arranged Ozgur Yavuzcetin

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

#3956 Section 01 [units: 1-3]

09/07-12/23 Arranged Arranged Robert Benjamin

Dept. Consent

#3957 Section 02 [units: 1-3]

09/07-12/23 Arranged Arranged Abdelkrim Boukahil

Dept. Consent

#3958 Section 03 [units: 1-3]

09/07-12/23 Arranged Arranged Juliana T Constantinescu

Dept. Consent

#3959 Section 04 [units: 1-3]

09/07-12/23 Arranged Arranged Jalal M Nawash

Dept. Consent

#3960 Section 05 [units: 1-3]

09/07-12/23 Arranged Arranged Paul M Rybski

Dept. Consent

#3961 Section 06 [units: 1-3]

09/07-12/23 Arranged Arranged Steven C Sahyun

Dept. Consent

#3962 Section 07 [units: 1-3]

09/07-12/23 Arranged Arranged Ozgur Yavuzcetin

Dept. Consent