Class# Section (Units) General Education Designation (if any) Consent

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

PHYSICS

Astronomy

ASTRONMY 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

#3246 Section 01 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*M*	*12:00 PM - 02:00 PM*	*UH0050*	*Juliana T Constantinescu*
09/02-12/23	*MTWR*	*02:15 PM - 03:05 PM*	*UH0141*	*Juliana T Constantinescu*

#3250 Section 02 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*M*	*03:20 PM - 05:20 PM*	*UH0050*	*Juliana T Constantinescu*
09/02-12/23	*MTWR*	*02:15 PM - 03:05 PM*	*UH0141*	*Juliana T Constantinescu*

#3256 Section 03 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*T*	*03:45 PM - 05:35 PM*	*UH0050*	*Paul M Rybski*
09/02-12/23	*MTWR*	*09:55 AM - 10:45 AM*	*UH0141*	*Paul M Rybski*

ASTRONMY 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

#3252 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM)

09/02-12/23	*TR*	*03:45 PM - 05:00 PM*	*UH0141*	*Juliana T Constantinescu*

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

#3258 Section 01 [units: 1-3] Dept. Consent

09/02-12/23	*Arranged*	*Arranged*	*Robert Benjamin*

#3260 Section 02 [units: 1-3] Dept. Consent

09/02-12/23	*Arranged*	*Arranged*	*Juliana T Constantinescu*

#3262 Section 03 [units: 1-3] Dept. Consent

09/02-12/23	*Arranged*	*Arranged*	*Paul M Rybski*

Physics

PHYSCS 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

#3216 Section 01 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*W*	*09:55 AM - 11:45 AM*	*UH0058*	*Saeed Ahmad*
09/02-12/23	*M*	*07:45 AM - 09:40 AM*	*UH0141*	*Saeed Ahmad*
09/02-12/23	*WF*	*08:50 AM - 09:40 AM*	*UH0141*	*Saeed Ahmad*

#3218 Section 02 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*W*	*01:10 PM - 03:00 PM*	*UH0058*	*Saeed Ahmad*
09/02-12/23	*M*	*07:45 AM - 09:40 AM*	*UH0141*	*Saeed Ahmad*
09/02-12/23	*WF*	*08:50 AM - 09:40 AM*	*UH0141*	*Saeed Ahmad*

PHYSCS 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, applicatons 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 PHYSCS 180 series. Four one-hour lectures and one three-hour laboratory per week.

COREQ: MATH 152

#3208 Section 01 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*W*	*02:15 PM - 05:15 PM*	*UH0050*	*Abdelkrim Boukahil*
09/02-12/23	*TR*	*11:00 AM - 12:15 PM*	*UH0141*	*Abdelkrim Boukahil*

#3220 Section 02 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23	*R*	*02:15 PM - 05:15 PM*	*UH0050*	*Abdelkrim Boukahil*
09/02-12/23	*TR*	*11:00 AM - 12:15 PM*	*UH0141*	*Abdelkrim Boukahil*

PHYSCS 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 wil 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

#5267 Section 01 [units: 3] Gen Ed Math/Natural Sciences (GM)

09/02-12/23 TR 12:30 PM - 01:45 PM UH0142 Juliana T Constantinescu

PHYSCS 180 PHYSICS FOR SCIENTISTS AND ENGINEERS I ... A lecture course in introductory physics including a mathematically rigorous analysis of mechanics, vibrations, weave 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

#3194 Section 01 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23 T 08:50 AM - 11:50 AM UH0058 Robert Benjamin

09/02-12/23 MTWF 01:10 PM - 02:00 PM UH0141 Robert Benjamin

#3198 Section 02 [units: 5] Gen Ed Laboratory (GL)

09/02-12/23 T 02:15 PM - 05:15 PM UH0058 Robert Benjamin

09/02-12/23 MTWF 01:10 PM - 02:00 PM UH0141 Robert Benjamin

PHYSCS 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.

#5268 Section 01 [units: 1]

09/02-12/23 F 12:05 PM - 12:55 PM UH0141 Juliana T Constantinescu

PHYSCS 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

#5272 Section 01 [units: 4] Gen Ed Laboratory (GL)

09/02-12/23 MW 12:05 PM - 02:25 PM UH0166 Steven C Sahyun

#5273 Section 02 [units: 4] Gen Ed Laboratory (GL)

09/02-12/23 MW 03:20 PM - 05:40 PM UH0166 Steven C Sahyun

PHYSCS 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: PHYSCS 181, OR PHYSCS 141 AND MATH 254

#5270 Section 01 [units: 2]

09/02-12/23 TR 12:30 PM - 02:30 PM UH0061 Paul M Rybski

PHYSCS 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: PHYSCS 181 OR PHYSCS 141 AND MATH 254

#3206 Section 01 [units: 3]

09/02-12/23 MWF 09:55 AM - 10:45 AM UH0236 Juliana T Constantinescu

PHYSCS 324 METHODS OF THEORETICAL PHYSICS ... Topics covered include methods of theoretical physics, vector analysis, differential equations of mathematical physics, analytic fuctions 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

#3204 Section 01 [units: 3]

09/02-12/23 TR 09:30 AM - 10:45 AM UH0145 Abdelkrim Boukahil

PHYSCS 364 THERMAL PHYSICS ... A study of the thermodynamics and statistical mechanics including the laws of classical thermodynamics, equations of state, thermodynamical processes, and applications to classical and quantum mechanical systems. Three one-hour lectures per week.

PREREQ: MATH 254 AND PHYSICS 174 AND PHYSICS 175 OR PHYSICS 162 AND PHYSICS 163

#5274 Section 01 [units: 3]

09/02-12/23 MWF 02:15 PM - 03:05 PM UH0238 Saeed Ahmad

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: SENIOR LEVEL PHYSICS MAJOR

#5271 Section 01 [units: 2]

09/02-12/23 WF 12:05 PM - 12:55 PM UH0238 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

#3238 Section 02 [units: 1-3] Dept. Consent
09/02-12/23 *Arranged* *Arranged* *Abdelkrim Boukahil*

#3240 Section 03 [units: 1-3] Dept. Consent
09/02-12/23 *Arranged* *Arranged* *Juliana T Constantinescu*

#3242 Section 04 [units: 1-3] Dept. Consent
09/02-12/23 *Arranged* *Arranged* *Paul M Rybski*

#3244 Section 05 [units: 1-3] Dept. Consent
09/02-12/23 *Arranged* *Arranged* *Steven C Sahyun*