PHYSICS (PHYS)

PHYS 1101 General Physics Lab I
Credit: 1 (0-1-0)
Laboratory experimentation reinforces concepts in mechanics. The course emphasizes scientific communication and collaboration as well as measurement methods, uncertainty in measurement, and basic error analysis.

Corequisites: PHYS 1301. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 1102 General Physics Lab II
Credit: 1 (0-1-0)
Laboratory experimentation reinforces concepts in oscillation and waves, electricity, and magnetism. The course emphasizes scientific communication and collaboration as well as measurement methods, uncertainty in measurement, and basic error analysis.

Corequisites: PHYS 1302. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 1301 General Physics I
Credits: 3 (3-0-0)
This course provides an introduction to Newtonian physics. Topics include Aristotelian physics and its overthrow, Newton's laws of motion and gravitation, and motion of particles, rigid bodies and fluids. The idea of the universe as a law-governed system will be developed. Trigonometry required for the course will be developed prior to its physic applications. Algebra and trigonometry based physics problem solving will be required. Home based experiments using commonly available items will be assigned. This course meets the standards for the "Life and Physical Sciences" category of courses under the core curriculum.

Prerequisites: MATH 1314 or MATH 1324 or MATH 2312 or MATH 2313.

Corequisites: PHYS 1101. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 1302 General Physics II
Credits: 3 (3-0-0)
Introduction to thermal physics, wave motion, electricity, and magnetism. The classical theory of fields will be used to study electric and magnetic phenomena, including light. This is the culmination of classical physics which underlies much of technology. Algebra and trigonometry based physics problem solving will be required. Home based experiments using commonly available items will be assigned. This course meets the standards for the "Life and Physical Sciences" category of courses under the core curriculum. TSI Restriction(s): Reading, Math, and Writing

Prerequisites: PHYS 1301 and one of the following: MATH 1314 or MATH 1324 or MATH 2312 or MATH 2313.

Restrictions: Graduate level students may not enroll.

PHYS 2125 University Physics Lab I
Credit: 1 (0-1-0)
Laboratory course linked to PHYS 2325. Laboratory experimentation reinforces concepts in mechanics. The course emphasizes scientific communication and collaboration as well as measurement methods, uncertainty in measurement, and error analysis using calculus.

Corequisites: PHYS 2325. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 2126 University Physics Lab II
Credit: 1 (0-1-0)
Laboratory course linked to PHYS 2326. Laboratory experimentation reinforces concepts in oscillation and waves, electricity and magnetism. The course emphasizes scientific communication and collaboration as well as measurement methods, uncertainty in measurement, and error analysis using calculus.

Corequisites: PHYS 2326. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 2325 University Physics I
Credits: 3 (3-0-0)
A calculus based introduction to Newtonian physics. Topics include Aristotelian physics and its overthrow, Newton's laws of motion and gravitation, and motion of particles, rigid bodies and fluids. Fluency in algebra and trigonometry is expected and differential and integral calculus will be used as necessary. Home based experiments using commonly available items will be assigned. This course meets the standards for the "Life and Physical Sciences" category of courses under the core curriculum.

Prerequisites: MATH 2313.

Corequisites: PHYS 2125, MATH 2314. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 2326 University Physics II
Credits: 3 (3-0-0)
Calculus based introduction to thermal physics, oscillatory and wave phenomena, electricity and magnetism. The classical theory of fields will be used to study electric and magnetic phenomena, including light. This is the culmination of classical physics which underlies much of technology. Fluency in algebra and trigonometry is expected and differential and integral calculus will be used as necessary. Home based experiments using commonly available items will be assigned. This course meets the standards for the "Life and Physical Sciences" category of courses under the core curriculum.

Prerequisites: PHYS 2325 and MATH 2314.

Corequisites: PHYS 2126. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Graduate level students may not enroll.

PHYS 2390 Selected Topics-Physics
Credits: 3 (3-0-0)
A course in physics in areas of specialization of the faculty, with emphasis on current developments. Specific topics will be changed from semester to semester, so a student may take the course for credit more than once (maximum 6 hours). Instructor approval required. TSI Restriction(s): Reading, Math, and Writing

Restrictions: Enrollment is limited to Undergraduate level students.
Repeat Status: Course may be repeated 1 time(s).

PHYS 4390 Advanced Topics-Physics
Credits: 3 (3-0-0)
A course in physics in areas of specialization of the faculty, with emphasis on current developments. Specific topics will be changed from semester to semester, so a student may take the course for credit more than once (maximum 6 hours). Instructor approval required. Instructor approval required. TSI Restriction(s): Reading, Math, and Writing

Restrictions:
Repeat Status: Course may be repeated 1 time(s).