



2018-20 UNDERGRADUATE CATALOG UPDATES AND REVISIONS

The revisions and updates provided here are listed in page order as they relate to content within the College's 2018-20 Undergraduate Catalog. Dates provided here reflect the effective date of said changes.

List of Minors

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May 24, 2019

The minor is Equine Management and Therapeutic Horsemanship is no longer being offered.

Minor – Equine Management and Therapeutic Horsemanship

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May 24, 2019

This minor is no longer being offered.

Minor- Chemistry

New Addition

June 5, 2019

Sponsoring department: Chemistry and Physics

Fundamental knowledge of chemistry is relevant in a variety of careers, and a minor in chemistry is a good complement to many majors. For Business majors there are opportunities to become entrepreneurs or work with tech start-up companies using applications of chemistry such as development of new materials for energy, electronics, buildings, and medical implants. Other prime business opportunities include discoveries of cures for diseases, new pharmaceuticals and natural medicines. Criminology majors gain hands-on experience with chemistry techniques and instrumentation used in crime scene investigation and forensic analysis. Education students complete coursework for an additional area of teacher certification. Mathematics and Computer Science majors apply chemistry to molecular modeling, computational chemistry, drug discovery and informatics. Pre-

Law students gain understanding of chemicals and processes important in Patent Law. Psychology majors apply chemistry to understanding the nervous system, brain, and effects of drugs. Biology majors broaden and deepen their knowledge of the fundamental topics inorganic chemistry, biochemistry, analytical chemistry, and physical chemistry.

Requirements for the Minor in Chemistry

Students must take at least 18 credits, distributed as follows:

A. Foundation Courses: (8 credits)

CP2120 Principles of Chemistry I	3 cr
CP2121 Principles of Chemistry Lab I	1 cr
CP2130 Principles of Chemistry II	3 cr
CP2131 Principles of Chemistry Lab II	1 cr

B. Elective Courses: (minimum of 10 credits from among the following)

CP3300 Organic Chemistry I	3 cr
CP3310 Organic Chemistry II	3 cr
CP3400 Analytical Chemistry	5 cr
CP3450 Inorganic Chemistry	3 cr
CP4490 Biochemistry for Life Sciences	3 cr
CP4510 Biochemistry I	3 cr
CP4515 Biochemistry II	3 cr
CP4520 Biochemistry Lab	2 cr
CP4700 Physical Chemistry I	3 cr
CP4710 Physical Chemistry II	3 cr
CP4720 Physical Chemistry Lab	2 cr
CP4800 Advanced Chemical Methods	5 cr
CP5500 Advanced Topics in Chemistry	3 cr

Minor - Physics

New Addition

June 5, 2019

Sponsoring department: Chemistry and Physics

Physics is the most fundamental of the sciences, and undergraduate training in physics provides a solid grounding in quantitative problem solving, analytical reasoning, and mathematical modeling. Fundamental knowledge of physics is relevant to a wide variety of majors and careers. A minor in physics is designed for students who have an interest in the fundamental laws of nature, the basic properties of matter, and the nature of space and time.

The physics minor consists of the introductory sequence General Physics I, II, and III, each with their respective lab. Although not recommended, it is possible to substitute Structure of Physics I and II for General Physics I and II. Students then take any two additional advanced physics courses.

Requirements for the Minor in Physics

Students must take at least 18 credits, distributed as follows:

A. Foundational courses: (12 credits)

CP2241 General Physics I Laboratory	
<i>or</i> CP22221 Structure of Physics I Laboratory	1 cr
CP2250 General Physics II	
<i>or</i> CP2230 Structure of Physics II	3 cr
CP2251 General Physics II Laboratory	
<i>or</i> CP2231 Structure of Physics I Laboratory	1 cr
CP2260 General Physics III	3 cr
CP2261 General Physics III Lab	1 cr

B. Elective Courses: Two courses from among the following (6-8 credits)

CP2900 Astronomy	3 cr
<i>and</i> co-requisite CP2901 Astronomy Lab	1 cr
CP3230 Mathematical Methods in the Physical Sciences	3 cr
CP4700 Physical Chemistry I	3 cr
CP4710 Physical Chemistry II	3 cr
CP4720 Physical Chemistry Lab	1 cr

Chemistry Courses

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June 5, 2019

The following courses have been added to the offerings of the Chemistry and Physics Department:

CP 2260 General Physics III 3 cr.

Course Description: This is the third course in the General Physics sequence which provides an overview of the fundamentals and analytical methods of physics. Students will learn to think logically and quantitatively about the behavior of nature and gain a systematic approach to problem solving. This course will cover selected classical topics, including harmonic oscillations, waves, optics, and fluid mechanics, as well as an introduction to select topics in modern physics, including special relativity, quantum mechanics, atomic, nuclear, and particle physics. Students enrolled in CP2260 General Physics III should concurrently enroll in the associated lab course, CP2261 General Physics III Lab.

Prerequisites: CP2230 or CP2250, MA2310

Co-Requisite: CP2261

CP 2261 General Physics III Lab 1 cr.

Course Description: This is the third course in the General Physics sequence which provides an overview of the fundamentals and analytical methods of physics. Students will learn to think logically and quantitatively about the behavior of nature and gain a systematic approach to problem solving. This course will cover selected classical topics, including harmonic oscillations, waves, optics, and fluid mechanics, as well as an introduction to select topics in modern physics, including special relativity, quantum mechanics, atomic, nuclear, and particle physics. Students enrolled in CP2260 General Physics III should concurrently enroll in the associated lab course, CP2261 General Physics III Lab.

Prerequisites: CP2230 or CP2250, MA2310

Co-Requisite: CP2260

CP 2900 Astronomy 3 cr.

Course Description: Survey course of astronomy topics ranging from the solar system to the universe, with application of evidence-based reasoning, critical thinking, and use of theoretical models and observations. This course has a focus on the solar system: apparent sky motions, telescopes, properties of the planets, structure and evolution of the solar system, stellar evolution, organization of the Milky Way Galaxy, galaxies, quasars, structure and evolution of the universe.

Pre-Requisite: MA1020

CP 2901 Astronomy Lab 1 cr.

Course Description: This is a one credit lab course, which is a co-requisite of Astronomy CP 2900. It serves as an introduction to observation astronomy. This course addresses the basic techniques of unaided astronomical observing as well as observation with a telescope. Observations will include the constellations of the fall sky, the moon, binary and variable stars, planetary observations and deep sky objects. Indoor labs will feature study of spectroscopy, celestial coordinates, astronomical images and data concerning variable stars, galactic mergers and universal expansion.

Pre-Requisite: MA1020

Co-Requisite: CP2900