Chemistry Electives 2021-22

The courses listed below will fulfill the CHEM elective requirement (6 credit hours) for CHBE Standard Option students:

**CHEM 3111** Inorganic Chemistry (FALL only)
A study of the reactions and structures of inorganic compounds and principles, generalizations and theories that assist in understanding their behavior. Prereq: CHEM 2312/2313

**CHEM 3281** Instrumental Analysis *(Not planned at this time for 2021-2022)*
Provides a background to modern analytical chemistry and instrumental methods of analysis with applications to engineering and other areas. Prereq: CHEM 2311 and PHYS 2212.

**CHEM 3412** Physical Chemistry II
Quantum mechanics, atomic and molecular structure, bonding theory, molecular spectroscopy, statistical mechanics. Prereq: CHEM 1212K and PHYS 2212.

**CHEM 3511** Survey of Biochemistry (ALL semesters, incl. SUMMER)
Introductory course in biochemistry dealing with the chemistry and biochemistry of proteins, lipids, carbohydrates, nucleic acids, and other biomolecules. Prereq: CHEM 2312/2313 or CHEM 1315.

**CHEM 4311** Adv. Organic Chemistry (FALL only)
Construction reactions and functional group interconversions as applied to multistep organic synthesis. Prereq: CHEM 2312/2313.

**CHEM 4341** Applied Spectroscopy (FALL only)
Theory and application of NMR, mass spectrometry, and infrared spectroscopy in the determination of organic structures. Prereq: CHEM 2312/2313.

**CHEM 4511** Biochemistry I
The chemistry and biochemistry of proteins, lipids, carbohydrates, nucleic acids, and other biomolecules. Prereq: CHEM 2312/2313

**CHEM 4512** Biochemistry II
The chemistry and biochemistry of proteins, lipids, carbohydrates, nucleic acids, and other biomolecules. Prereq: CHEM 4511.

*No credit awarded for both CHEM 3511 and CHEM 4511. For students on catalog years prior to 2015-16, CHEM electives do not always auto-fill in DegreeWorks. The exception entry is manual, and this is usually done prior to an advising appointment or when you complete your graduation application.*

Updated 3/24/2021