

# B.S. DEGREE REQUIREMENTS FOR CHEMISTRY

To declare a B.S. major in Chemistry, a student must satisfy either of the following two requirements:

1) Earn a grade of C+ or better in General Chemistry lecture and laboratory courses (CHE106/107/116/117 or honors equivalents, or AP credit for CHE106/107/116/117) AND earn a grade of C or better in CHE 275;

-OR-

2) Earn a grade of A- or better in a General Chemistry lecture course (CHE106/116/109/119) taken at Syracuse University.

At least 45 credits in chemistry are required for the B.S. degree. Each student's course of study should include the following:

## **1.) Required Chemistry Core Courses**

CHE 106: General Chemistry Lecture I (3)

CHE 116: General Chemistry Lecture II (3)

**OR**

CHE 109: General Chemistry Lecture I (Honors & Majors) (3)

CHE 119: General Chemistry Lecture II (Honors & Majors) (3)

CHE 107: General Chemistry Lab I (1)

CHE 117: General Chemistry Lab II (1)

**OR**

CHE 129: General Chemistry Lab I (Honors & Majors) (1)

CHE 139: General Chemistry Lab II (Honors & Majors) (1)

CHE 275: Organic Chemistry Lecture I (3)

CHE 276: Organic Chemistry Laboratory I (2)

CHE 325: Organic Chemistry Lecture II (3)

CHE 326: Organic Chemistry Laboratory II (2)

CHE 346: Physical Chemistry Lecture I (3)

CHE 347: Physical – Analytical Chemistry Laboratory (2)

CHE 356: Physical Chemistry Lecture II (3)

CHE 357: Physical Chemistry Laboratory (2)

CHE 411: Inorganic Chemistry (3)

CHE 422: Inorganic Laboratory Techniques (1)

CHE 450: Introduction to Chemical Research (1-4)

(at least 3 credits)

CHE 335: Chemical and Biochemical Analysis with Laboratory (4)

**OR**

CHE/FSC 444: Forensic Chemical Analysis (4)

BCM 475: Biochemistry (3)

## **2.) At least 3 credits in a lecture course chosen from:**

CHE 412: Metals in Medicine (3)

CHE 414: Introduction to Medicinal Chemistry (3)

CHE 425: Crystallography (3)

CHE 427: Organic Chemistry of Biological Molecules (3)

CHE 436: Advanced Physical Chemistry (3)

CHE 474: Structural and Physical Biochemistry (3)

CHE 546: Molecular Spectroscopy and Structure (1-9)

CHE 575: Organic Spectroscopy (3)

BCM 476: Biochemistry II (3)

*or selected graduate courses with the instructor's approval*

## **3.) Required Calculus (one year) and Physics Courses**

MAT 295: Calculus I (4)

MAT 296: Calculus II (2-4)

PHY 211: General Physics Lecture I (3)

PHY 212: General Physics Lecture II (3)

PHY 221: General Physics Laboratory I (1)

PHY 222: General Physics Laboratory II (1)

If taken in an appropriate area of research, additional credit in CHE 450 beyond the 3 credits required in (1) above may be substituted for up to 4 laboratory credits with the department's approval.

Students who receive a score of 5 on the AP chemistry exam will receive credit for CHE 106/116 and CHE 107/117 (8 credits)\*

\*Pre-medical students should consult with Health Professions Advising before accepting AP chemistry credit.

*Last updated: August 9, 2017*