

# Programs

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## Chemistry, B.S.

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### (50 - 52 credits)

The Bachelor of Science in Chemistry, under the Department of Biology, Chemistry and Mathematics, is designed to prepare students for industry, graduate school or professional school (including medicine, dentistry, and veterinary medicine). This is achieved through a broad-based education that includes exposure to major areas of chemistry including analytical, biochemistry, inorganic, organic and physical. In both the classroom setting and in the laboratory, students will interact directly with our faculty, taking advantage of our small student to faculty ratio.

This major meets the Connecticut State Department of Education requirements for those students enrolled in the initial teacher preparation program at Albertus Magnus College and are seeking a secondary level teacher certification with a chemistry endorsement. Contact the Department of Education and Teacher Preparation for additional information.

Upon completing the program of study in Chemistry, students will develop:

- Proficient knowledge base and breadth (introductory courses supplemented by upper-level courses).
- Proficient critical thinking skills (data interpretation/presentation especially in upper level courses e.g., SC 351).
- Proficiency in written/oral communication skills (lab reports, research papers in introductory & advanced courses, oral presentations and in-class discussions).
- Proficiency in experimental design (present both in introductory & advanced levels especially with laboratory report components; should include a degree of creativity especially in design of experiments, the choice of experimental tools and the proper choice of experimental "controls").
- Proficiency in information literacy (all courses include a “library component” for research projects/papers; seminars by invited library staff to facilitate database access, navigation and usage).
- Proficiency in quantitative analysis (data interpretation & presentation; covered in both introductory and upper-levels courses).

### **MAJOR REQUIREMENTS**

#### **REQUIRED CORE (32 credits)**

CH 121	General Chemistry I
CH 121L	General Chemistry I Laboratory
CH 122	General Chemistry II

CH 122L	General Chemistry Laboratory II
CH 221W	Organic Chemistry I
CH 221L	Organic Chemistry I Laboratory
CH 222	Organic Chemistry II
CH 222L	Organic Chemistry II Laboratory
CH 241	Introduction to Analytical Chemistry I
CH 241L	Introduction to Analytical Chemistry I Laboratory
CH 242	Introduction to Analytical Chemistry II
CH 242L	Introduction to Analytical Chemistry II Laboratory
CH 321	Physical Chemistry I
CH 321L	Physical Chemistry I Laboratory
CH 322	Physical Chemistry II
CH 322L	Physical Chemistry II Laboratory

**REQUIRED CORRELATIVES (credits vary)**

MA 121	Calculus I
MA 122	Calculus II
SC 131	General Physics I
SC 131L	General Physics I Laboratory
SC 132	General Physics II
SC 132L	General Physics II Laboratory
SC 302	Practicum/Internship
SC 351	Senior Science Seminar I

\*Note: SC 302 (credits vary)