CHEMISTRY
Program

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STOCKTON UNIVERSITY | SCHOOL OF NATURAL SCIENCES & MATHEMATICS

Chemistry Program | CHEM

ABOUT THE PROGRAM

The **Chemistry program** offerings are designed for students who want to become chemists, for those who would like to use chemistry to understand the behavior of living systems, and for those who wish to apply chemistry to problems in physics, geology, environmental studies or marine science. It is also an appropriate degree program for students pursuing careers in engineering, medicine, dentistry, veterinary medicine or science teaching at the secondary level. The program seeks to provide students an opportunity to acquire a sound foundation in chemistry, and to see its broader applications.

Course offerings, laboratory experiments, seminars and independent study in the program are tailored to the background and goals of the individual student as much as possible. As the student progresses, emphasis shifts from relatively structured classroom and laboratory experiences to activities which require increasing independence and initiative on the student's part. Undergraduate research is an integral part of the typical experience
in the laboratory for juniors and seniors.

Chemistry tracks of study:

- Chemistry BA
- Chemistry BA, Education track
- Chemistry BS, Standard track
- Chemistry BS, Environmental track
- Chemistry BS, American Chemical Society certified
- Dual Degree in Chemistry and Engineering,

Offering:

- Modern teaching and research laboratories
- Most courses are taught by full-time faculty
- No courses or labs are taught by graduate student assistants
- Every student is assigned a faculty member as their academic advisor (preceptor)
- A senior project or research-based internship is required of all CHEM majors for graduation.
- Graduates typically pursue advanced studies, secondary school teaching or laboratory employment opportunities in the area.
- Introduction to research experience for freshmen
- State-of-the-art research equipment, such as GC-MS, HPLC, NMR, FT-IR, Atomic Absorption, Ion Chromatography, Real Time qPCR, UV-Vis Spectrophotometry, Radioisotope detection, X-Ray Diffraction

Examples of faculty research:
- Methods for determination of trace pollutants
- Effects of environmental stressors on organisms
- Organometallic synthesis and characterization
- Trace explosives characterization and detection
- Solar cell development
- Synthetic organic chemistry

PROGRAM REQUIREMENTS

In addition to the University's general education requirements, Chemistry Majors are expected to complete the following courses:

The BS in Chemistry requires 80 credits in Program and Cognate Courses
The BA in Chemistry requires 64 credits in Program and Cognate Courses
- General and Organic Chemistry with labs (Chemistry I, Chemistry II, Chemistry III, Chemistry IV), Inorganic Chemistry, Organic Techniques, Lab Methods I and II and Physical Chemistry I and II
- Calculus I, Calculus II
- Chemistry Seminar
- Physics I and II with labs
- Additional upper-level courses to meet requirements.

Students may also be certified with a MINOR in Chemistry by completing the following requirements (26 credits): Chemistry I, Chemistry II, Chemistry III and Chemistry IV with labs.

One of the following upper level courses: Survey of Instrumentation, Inorganic Chemistry, Lab Methods I, Biochemical Lab Methods, Adv. Organic Chemistry with Organic Techniques.

One additional 4-credit Chemistry course at the 3000 or 4000 level.

FOR ADDITIONAL INFORMATION

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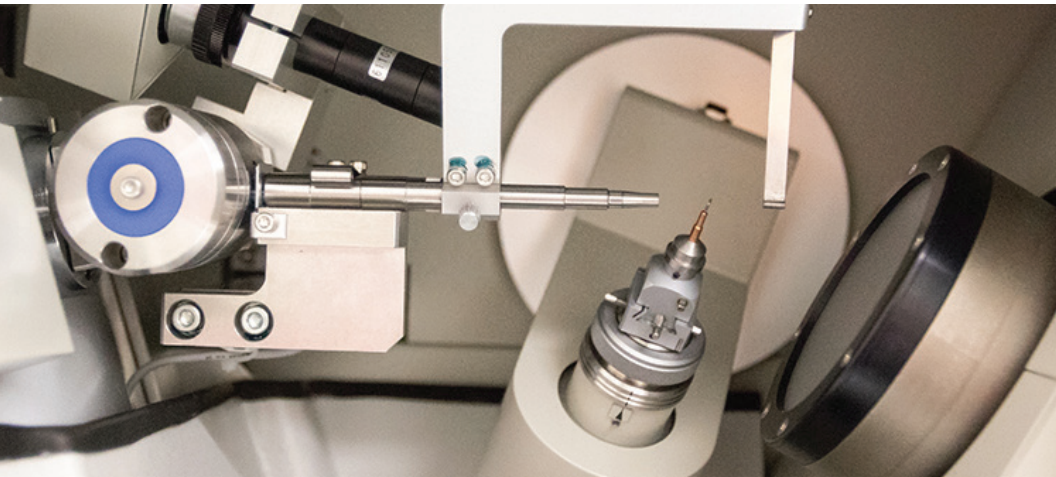

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FOR INFORMATION ABOUT THE PROGRAM:

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