

Stephen F. Austin State University

Department of Chemistry and Biochemistry

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Its Elemental!!

Faculty/Staff

- **Professors**

Michele R. Harris, Michael A. Janusa,
Richard H. Langley, John T. Moore

- **Associate Professors**

Alyx S. Frantzen, Odutayo O. Odunuga,
Kefa K. Onchoke

- **Assistant Professor**

Brian Bargrover, Russell J. Franks,
Darrell R. Fry, Matibur Zamadar

- **Staff**

Carrie Stover, Jennifer Edwards

Degrees/Programs Offered

The department offers both experimental and theoretical courses in the five principal areas of chemistry – analytical, biochemistry, inorganic, organic, and physical.

- Bachelor of Science in Chemistry or Biochemistry (ACS certified or non-certified)
- Master of Science in Natural Science with a concentration in Chemistry (thesis or non-thesis; Overlap Program)
- Minor

Requirements for B.S. Degree

- 120 hours

- 44 hrs (biochemistry major) or 45 hrs (chemistry major) of core chemistry [specific courses are required]

An American Chemical Society certified B.S. degree in chemistry consists of completing one of the chemistry tracks and completion of a satisfactory supervised research project. Biochemistry degree requires one or two additional courses.

- 24 hrs (biochemistry major) or 23 hrs (chemistry major) of minor/electives
- 52 hours core/college requirements (includes PHY 241 and 242 and mathematics courses through MTH 234)



Requirements for B.S. Degree

B.S. Biochemistry – 24 hours of minor/electives

Biochemistry combines the fundamentals of a B.S. degree in Chemistry with advanced courses in Biochemistry and the life sciences. Biochemistry majors are required to minor in Biology (24 hours). Biochemistry degree is recommended for health science careers (pre-medicine, pre-pharmacy, pre-dentistry, pre-veterinary).

Requirements for Chemistry Minor

Requires minimum of 18 hours of chemistry:

Required courses⁽¹⁾:

- ❑ CHE 133 (4) – General Chemistry I (F, Sp, Su I)
- ❑ CHE 134 (4) – General Chemistry II (F, Sp, Su II)
- ❑ CHE 231 (4) – Quantitative Analysis (Sp)
- ❑ CHE 331 (4) – Organic I (F, Su I)⁽²⁾
- ❑ Plus 2 hrs of advanced chemistry⁽²⁾ –

Common options⁽¹⁾:

- CHE 332 (4) – Organic II (Sp, Su II)
- CHE 420 (4) – Environmental (Sp)
- CHE 452 (3) – Biochemistry I (F, Sp)
- CHE 452L (1) – Biochemistry I Lab (F)
- CHE 475/476 (1-4) – research (F, Sp, Su I, Su II)
- CHE 481 (3) – Laboratory Internship (F, Sp, Su I, Su II)

Notes: 1) All prerequisites for any course must be met before enrolling.
Please refer to the General Bulletin for course prerequisites.

2) 6 hours of 300 level or above must be at SFA

note: upper level courses taken elsewhere do not satisfy this requirement

Chemistry Graduate Degrees

- **Overlap Graduate Degree Program**
 - permits qualified undergraduates to pursue a limited amount of graduate study (usually 12 credit hours or less) concurrently with undergraduate study.
- **Thesis Master's degree option**
 - requires a minimum 21 of the required 30 semester hours in chemistry (including CHE 589 and 590).
- **Non-thesis Master's degree option**
 - requires 18 of the required 36 semester hours in chemistry and 18 hours outside of chemistry.



Areas in which Chemists are Employed

An individual trained as a chemist or biochemist has a wide range of occupations available. We prepare our graduates for successful careers in the chemical industry, life or health sciences, and secondary school teaching. We also prepare our graduates to pursue higher degrees and obtain technical positions in basic research with governmental agencies, businesses, and universities.

- Environmental
- Pharmaceutical drug design
- Forensics
- Medical research
- Agricultural research
- Biochemistry/biotechnology
- Government: such as EPA, Department of Defense, NIH, NSF
- Patent Law
- Education

Beyond the B.S.

- Graduate school (analytical, biochemical, inorganic, organic, physical chemistry)
- Professional School (medical, dental, pharmacy, optometry, etc.)

Why study Chemistry at SFASU?

- Accredited by American Chemical Society
- Approximately \$50k in scholarships available annually
 - Robert A. Welch Foundation Grant provides about \$30K in scholarships for chemistry annually.
 - Alumni Association Scholarships specifically for Chemistry Majors and Chemistry Departmental scholarships provides approximately \$20k in scholarships for chemistry annually.

Why study Chemistry at SFASU?

Scholarships

- Chemistry Departmental Scholarships
- Regents Scholarship -<http://www.sfasu.edu/admissions/scholarships/regents>
- Harold Abbott Memorial
- Thomas & Kathleen Cox
- Henry & Edna Merle Dishburger
- Kevin & Jacquelyn Dodds
- Bennie & Pat O'Rear
- David W. Robertson
- David W. Robertson – Pfizer
- Pete & Jacqueline Smith
- James Garrett
- Robert A. Welch Foundation – Research

There are additional scholarships available through the Alumni Office.

Why study Chemistry at SFASU?

- All chemistry courses taught by faculty with doctorates
- Research opportunities beginning at the sophomore level (stipends available)
- Undergraduates have access to all scientific equipment.
- Employment opportunities in department (teaching Assistants for labs)
- Scientific speakers and social functions
- Small class size and individual attention by faculty
- The SFA Chemistry & Biochemistry Department has many successful alumni, i.e. Joseph W. Kennedy – discoverer of plutonium

How to contact us:

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- Phone: 936.468.3606
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Dr. Michael Janusa, Chair