

Department/Program: Chemistry

Degree designation: CHM (BA)

Track/Concentration/Specialization (if applicable):

Program/Department/College Mission Statement:

The Department of Chemistry at USF:

- Educates bachelors, masters and Ph.D. students;
- Pursues, disseminates, and applies new scientific knowledge;
- Attracts students into Chemistry;
- Endeavors to make all USF students literate in science;
- Supports strengthening science education in schools and society;
- Participates in university governance, community initiatives, industrial interaction and professional organizations.

Identification of Core Student Learning Outcomes: Chemistry BA

Graduates of this program should be able to do the following:

Content/discipline skills:

- Possess a general knowledge of upper level chemistry topics.
- Be familiar with standard research instruments used in the chemistry field.
- Demonstrate knowledge of scientific research methods.

Critical Thinking Skills

- Analyze experimental data and draw conclusions
- Make predictions based on evidence

Communication Skills

- Work successfully in groups
- Prepare and deliver effective oral presentations
- Present scientific information in written reports

Assessment of Student Learning Outcomes:

The Department of Chemistry will assess the students' core learning outcomes using examinations, laboratory and classroom assignments, and presentations. The results of the assessments will be used to improve student achievement and program effectiveness.

Career/Employment Options for Graduates: professional school, graduate school, and careers in industry and government

Department/Program: Chemistry

Degree designation: CHM (BS)

Track/Concentration/Specialization (if applicable):

Program/Department/College Mission Statement:

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- Educates bachelors, masters and Ph.D. students;
- Pursues, disseminates, and applies new scientific knowledge;
- Attracts students into Chemistry;
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- Participates in university governance, community initiatives, industrial interaction and professional organizations.

Identification of Core Student Learning Outcomes: Chemistry BS

Graduates of this program should be able to do the following:

Content/discipline skills:

- Possess a general knowledge of upper level chemistry topics.
- Be able to operate standard research instruments used in the chemistry field.
- Be able to conduct a scientific research project

Critical Thinking Skills

- Analyze experimental data and draw conclusions
- Make predictions based on evidence

Communication Skills

- Work successfully in groups
- Prepare and deliver effective oral presentations
- Present scientific information in written reports

Assessment of Student Learning Outcomes:

The Department of Chemistry will assess the students' core learning outcomes using examinations, laboratory and classroom assignments, and presentations. The results of the assessments will be used to improve student achievement and program effectiveness.

Career/Employment Options for Graduates: professional school, graduate school, and careers in industry and government

Department/Program: Chemistry

Degree designation: BMS (BS)

Track/Concentration/Specialization (if applicable):

Program/Department/College Mission Statement:

The Department of Chemistry at USF:

- Educates bachelors, masters and Ph.D. students;
- Pursues, disseminates, and applies new scientific knowledge;
- Attracts students into Chemistry;
- Endeavors to make all USF students literate in science;
- Supports strengthening science education in schools and society;
- Participates in university governance, community initiatives, industrial interaction and professional organizations.

Identification of Core Student Learning Outcomes: Biomedical Sciences

Graduates of this program should be able to do the following:

Content/discipline skills:

- Possess a general knowledge of upper level chemistry, physics and biology topics.
- Understand modern methods of biomedical research.

Critical Thinking Skills

- Analyze research data and draw conclusions
- Make predictions based on evidence

Communication Skills

- Work successfully in groups
- Present scientific information in written reports

Assessment of Student Learning Outcomes:

The Department of Chemistry will assess the students' core learning outcomes using examinations, laboratory and classroom assignments, and presentations. The results of the assessments will be used to improve student achievement and program effectiveness.

Career/Employment Options for Graduates: Medicine, Dentistry, Pharmacy, Optometry, and other health professions.

Department/Program: Chemistry

Degree designation: INS (BS)

Track/Concentration/Specialization (if applicable):

Program/Department/College Mission Statement:

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- Educates bachelors, masters and Ph.D. students;
- Pursues, disseminates, and applies new scientific knowledge;
- Attracts students into Chemistry;
- Endeavors to make all USF students literate in science;
- Supports strengthening science education in schools and society;
- Participates in university governance, community initiatives, industrial interaction and professional organizations.

Identification of Core Student Learning Outcomes: Interdisciplinary Natural Sciences

Graduates of this program should be able to do the following:

Content/discipline skills:

- Possess a general knowledge of the five natural sciences (chemistry, physics, biology, geology, and mathematics)
- Demonstrate knowledge of scientific research methods.

Critical Thinking Skills

- Analyze data and draw conclusions
- Make predictions based on evidence

Communication Skills

- Work successfully in groups
- Present scientific information in written reports

Assessment of Student Learning Outcomes:

The Department of Chemistry will assess the students' core learning outcomes using examinations, laboratory and classroom assignments, and presentations. The results of the assessments will be used to improve student achievement and program effectiveness.

Career/Employment Options for Graduates: Teaching high school science or careers in government

Department/Program: Chemistry

Degree designation: MET (BS)

Track/Concentration/Specialization (if applicable):

Program/Department/College Mission Statement:

The Department of Chemistry at USF:

- Educates bachelors, masters and Ph.D. students;
- Pursues, disseminates, and applies new scientific knowledge;
- Attracts students into Chemistry;
- Endeavors to make all USF students literate in science;
- Supports strengthening science education in schools and society;
- Participates in university governance, community initiatives, industrial interaction and professional organizations.

Identification of Core Student Learning Outcomes: Medical Technology

Graduates of this program should be able to do the following:

Content/discipline skills:

- Possess a general knowledge of chemistry, immunology, and microbiology
- Be familiar with standard clinical instrumentation used in these fields.
- Understand modern methods of clinical research.

Critical Thinking Skills

- Analyze data and draw conclusions
- Make predictions based on evidence

Communication Skills

- Work successfully in groups
- Prepare and deliver effective oral presentations
- Present scientific information in written reports

Assessment of Student Learning Outcomes:

The Department of Chemistry will assess the students' core learning outcomes using examinations, laboratory and classroom assignments, presentations, and evaluations of their hospital internships. The results of the assessments will be used to improve student achievement and program effectiveness.

Career/Employment Options for Graduates: Careers in hospital laboratories working in clinical chemistry, blood banking, hematology, and microbiology