



Graduate Curriculum Approval Form Changes to Graduate Majors

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|---|------------------|
| Degree Program CIP Code | 40.0501 |
| Degree (i.e. M.A., Ph.D., etc.): | M.S. |
| Name of Major (e.g. Biology) | Chemistry |
| Name of affected Concentration(s) (e.g. Botany) | N/A |
| Proposed Effective Term (e.g. Fall 2017) | Fall 2018 |
| Faculty Contact | Jennifer Lewis |
| Email | jennifer@usf.edu |

| APPROVALS | Name | Signature | Action | Date |
|--|---|------------------|---|---------|
| Dept. Chair | Wayne Guida | | <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Not approved <input type="checkbox"/> Comments attached | 1/23/18 |
| School Committee Chair (if applicable) | | | <input type="checkbox"/> Approve <input type="checkbox"/> Not approved <input type="checkbox"/> Comments attached | |
| College Committee Chair | | | <input type="checkbox"/> Approve <input type="checkbox"/> Not approved <input type="checkbox"/> Comments attached | |
| College Dean/ Associate Dean | Robert Potter | | <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Not approved <input type="checkbox"/> Comments attached | 1/23/18 |
| Concurrence <input type="checkbox"/> N/A <input type="checkbox"/> Needed | Dept. Chair: | | <input type="checkbox"/> Concur <input type="checkbox"/> Doesn't concur <input type="checkbox"/> Comments attached | |
| Grad Council | <input type="checkbox"/> Approve <input type="checkbox"/> Not approved <input type="checkbox"/> Tabled <input type="checkbox"/> Comments | Graduate Studies | <input type="checkbox"/> Approve <input type="checkbox"/> Disapprove | |

Summary of Changes – Select all that apply:

Admissions Section:

- Change Priority Admission Deadlines
 - Fall: Dec 5
 - Spring: _____
 - Summer: _____
 - To "fall admissions only"
- From Regular to Direct Receipt Admissions
- From Direct Receipt to Regular Admission
- Admission Requirements

Curriculum Requirements

- Current Curriculum Requirements
 - Core
 - Add New Concentration, Specialization, or Track*
 - Delete Concentration, Specialization, or Track
 - Thesis/Dissertation
 - Comprehensive/Qualifying Exam
- Other: add courses and fix minor errors in text

**Requires submission to APAC for comment/clearance*

Why are these changes necessary?

These course list changes are needed to include courses that have been formally approved through the university process. Other small changes address typographical errors and improve clarity and readability. The Fall priority admission deadline change improves our business processes by allowing an additional 10 days for staff and committee work.

Attach the current Catalog Copy, with the requested revisions shown using Track Changes. Catalog copy is not required for changes to the Admission Deadline. All other changes require Catalog Copy. To obtain the most current catalog, email cdh@usf.edu.

Once College has approved, scan and email this Approval Form, and the revised Catalog Copy in Word to Graduate Studies by the deadline posted online <http://www.grad.usf.edu/graduate-council.php>. For questions, contact cdh@usf.edu

CHEMISTRY

Master of Science (M.S.) Degree

DEGREE INFORMATION

Priority Admission Application Deadlines:Fall: ~~December 15~~Spring: ~~August 15~~~~February 15~~Spring: ~~October 1~~**International applicant deadlines:**<http://www.grad.usf.edu/majors>

Minimum Total Hours: 30
Level: Master's
CIP Code: 40.0501
Dept. Code: CHM
Major/College Codes: CHM AS
Approved: 1965

CONTACT INFORMATION

College: Arts and Sciences

Department: Chemistry

Contact Information: ~~—~~ www.grad.usf.edu**Other Resources:** <http://chemistry.usf.edu/graduate/>

MAJOR INFORMATION

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a ~~large and strong~~ ~~(better wording)~~ ~~large and strong~~ faculty with a wide variety of courses ~~and electives~~ provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:

Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

~~Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.~~

- ~~a~~**A** baccalaureate degree in Chemistry or a closely related discipline.
- ~~a~~**A** preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required, ~~but recommended~~).
- ~~a~~**A** minimum of a 3.00 grade point average (based on a 4.00 scale) in all undergraduate coursework, as verified by an ~~official~~ transcript from the applicant's undergraduate institution.
- ~~at~~**At** least three letters of recommendation from professionals familiar with the student's academic background.

- Applicants whose native language is not English must obtain at least a score of 79 on the Internet-based Test of English as a Foreign Language (TOEFL).

CURRICULUM REQUIREMENTS

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

Twenty hours must be in formally structured (graded) courses of which sixteen hours must be at the 6000 level, as approved by the student's Supervisory Committee.

Core Requirements – ~~10~~ 10 Credits Hours

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|----------|-----------|---------------------------------------|
| CHM 6935 | 3 credits | <u>Graduate Seminars in Chemistry</u> |
| CHM 6978 | 3 credits | <u>Advanced Research in Chemistry</u> |
| CHM 6973 | 4 credits | <u>Directed Research</u> |

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Thesis – 2 Credit Hours

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| <u>CHM 6971</u> | <u>2 credits</u> | <u>Thesis</u> |
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Electives - 18 Credit Hours

Students may select from ~~the following list of 5000 or 6000 graduate~~ level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

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| BCH 5045 | 3 credits | Biochemistry Core Course |
| BCH 5105 | 1-3 credits | Biochemistry Laboratory Rotations |
| CHM 5225 | 3 credits | Advanced Organic Chemistry I |
| CHM 5226 | 3 credits | Advanced Organic Chemistry II |
| CHM 5452 | 3 credits | Polymer Chemistry |
| CHM 5621 | 3 credits | Principles of Inorganic Chemistry |
| CHM 5931 | 1-3 credit(s) | Selected Topics in Chemistry |
| CHM 6036 | 3 credits | Chemical Biology |
| CHM 6150 | 3 credits | Advanced Analytical Chemistry |
| CHM 6235 | 3 credits | Spectroscopic Analysis of Organic Compounds |
| CHM 6250 | 3 credits | Advanced Organic Chemistry I: Synthesis |
| CHM 6263 | 3 credits | Advanced Organic Chemistry II: Physical-Organic |
| CHM 6279 | 3 credits | Introduction to Drug Discovery |
| CHM 6936 | 1 credit | Chemistry Colloquium |
| CHM 6938 | 1-3 credit(s) | Selected Topics in Chemistry |
| CHM 6945 | 3 credits | Investigating Chemical Education Research in the United States |
| BCH 5045 | 3 credits | Biochemistry Core Course |
| BCH 5105 | 1-3 credits | Biochemistry Laboratory Rotations |
| CHM 5225 | 3 credits | Intermediate Organic Chemistry I |
| CHM 5226 | 3 credits | Intermediate Organic Chemistry II |
| CHM 5452 | 3 credits | Polymer Chemistry |
| CHM 5621 | 3 credits | Principles of Inorganic Chemistry |
| CHM 5931 | 1-3 credit(s) | Selected Topics in Chemistry |
| CHM 6036 | 3 credits | Chemical Biology |
| CHM 6150 | 3 credits | Advanced Analytical Chemistry |
| CHM 6235 | 3 credits | Spectroscopic Analysis of Organic Compounds |
| CHM 6250 | 3 credits | Advanced Organic Chemistry I: Synthesis |
| CHM 6263 | 3 credits | Advanced Organic Chemistry II: Physical-Organic |
| CHM 6279 | 3 credits | Introduction to Drug Discovery |
| CHM 6480 | 3 credits | Advanced Quantum Mechanics I |
| CHM 6810 | 3 credits | Methods of Instruction in Higher Ed Chemistry |
| CHM 6811 | 3 credits | Classroom Assessment Practices in Chemistry |
| CHM 6907 | 1-19 credit(s) | Independent Study |

USF Graduate Catalog ~~2018-2019~~2017-2018

Chemistry M.S.

~~CHM 6936 1 credit Chemistry Colloquium~~

~~CHM 6938 1-3 credit(s) Selected Topics in Chemistry~~

~~CHM 6945 3 credits Investigating Chemical Education Research in the United States~~

~~CHM 6946 1-4 credit(s) Graduate Instruction Methods~~

~~**Comprehensive Exam**~~

~~The comprehensive exam for the MS takes the form of an oral defense of a written thesis.~~

~~**Thesis — 2 credit hour**~~

~~CHM-6971 — 2 credit Thesis~~

~~**Comprehensive Exam**~~

~~The comprehensive exam for the MS takes the form of an oral defense of a written thesis.~~

~~**Other Program Requirements**~~

~~**Oral Defense of a Research Thesis**~~

~~The student must submit and orally defend before the Supervisory Committee a written thesis based on original research in an area approved by the student's Supervisory Committee. This will serve as the final comprehensive examination required by the USF Office of Graduate Studies.~~

COURSES

See <http://www.ugs.usf.edu/course-inventory/>

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