

PROPOSAL TO OFFER A MINOR IN FALL 2002

Proposed Name of Minor: Minor in Chemistry

Faculty Proposing Minor: Philip Hampton

1. Catalog Description:

The boundaries between Chemistry and other scientific disciplines (i.e., Biology, Physics, Computer Science, and Mathematics) are increasingly becoming difficult to distinguish and new interdisciplinary fields continue to appear that lie at the interface between Chemistry and these other disciplines, i.e. bioinorganic and bioorganic chemistry, cheminformatics and computational chemistry. The purpose of the Chemistry minor is to provide non-majors with the Chemistry background that is needed to pursue graduate study or a career in an interdisciplinary field. Students in pre-professional programs (pre-medical, pre-dental, pre-veterinary, pre-pharmacy), or majoring in Biology or Environmental Science and Resource Management, in particular, should consider obtaining a Chemistry minor, since a significant portion of the coursework needed for the Chemistry minor is included in these programs.

REQUIREMENTS FOR THE MINOR IN CHEMISTRY (23 units):

LOWER DIVISION REQUIREMENTS (8 units):

CHEM 121 General Chemistry I and Laboratory 4
CHEM 122 General Chemistry II and Laboratory 4

UPPER DIVISION REQUIREMENTS (8 units):

CHEM 311 Organic Chemistry I 3
CHEM 312 Organic Chemistry I Laboratory 1
CHEM 314 Organic Chemistry II 3
CHEM 315 Organic Chemistry II Laboratory 1

ELECTIVES (7 units):

A total of 7 units of electives on the 300-400 level or CHEM 250 and CHEM 251; a maximum of three units of an upper-division interdisciplinary General Education course (CHEM 330-349 or CHEM 430-449) and/ or one unit of a Learning Community course (CHEM 123, 124, 313, or 314) can be applied to the Chemistry minor. Interdisciplinary General Education courses that are cross-listed with Chemistry can be counted toward the major and the Chemistry minor.

2. Justification for Proposed Minor (< 100 words):

The minor in Chemistry can be completed in conjunction with majors in Biology, Computer Science, Environmental Science and Resource Management, Physics, and Mathematics resulting in a unique interdisciplinary degree program. Biology majors need only take CHEM 314 and 315 (Organic Chemistry II and Laboratory) instead of CHEM 318 (Biological Chemistry), and an additional seven units to obtain the minor in Chemistry. Most of these students will elect to take CHEM 400 (Biochemistry I) since it would satisfy the biochemistry requirement of the Cell and Molecular Biology Emphasis. The additional three units can be CHEM 350 (Physical Chemistry I) which many graduate programs in Cell and Molecular Biology recommend or require for admission, or an interdisciplinary course that is cross-listed between Biology and Chemistry (i.e., CHEM 343, 346, or 430) which counts toward upper-division General Education, the major in Biology, and the minor in Chemistry. Students in pre-professional programs (pre-medical, pre-pharmacy, pre-dental, and pre-veterinary) are required to take one year of General Chemistry (CHEM 121 and 122) and one year of Organic Chemistry (CHEM 311, 312, 314, and 315) with their associated laboratories for admission to these programs. These students will also only need to take an additional seven units of Chemistry courses to obtain a minor in Chemistry.

3. Total Number of Units in the Minor (including pre-/ co-requisites): 23 units

4. Lower-Division Requirements (including pre-/ co-requisites): (8 units)

CHEM 121 General Chemistry I and Laboratory 4
CHEM 122 General Chemistry II and Laboratory 4

5. Upper-Division Requirements (including pre-/ co-requisites): (8 units)

CHEM 311 Organic Chemistry I 3
CHEM 312 Organic Chemistry I Laboratory.. 1
CHEM 314 Organic Chemistry II 3
CHEM 315 Organic Chemistry II Laboratory.

6. Lower and Upper-Division Electives (if any):

A total of 7 units of electives on the 300-400 level or CHEM 250 and CHEM 251 (Quantitative Analysis and Laboratory) including a maximum of three units of an upper-division interdisciplinary General Education Course (CHEM 330-349 or 430-449) and/ or one unit of a Learning Community course (CHEM 123, 124, 313, or 314). Interdisciplinary General Education courses that are cross-listed with Chemistry can be double-counted toward the major and the Chemistry minor.

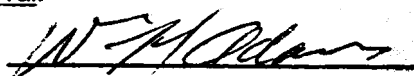
7. Additional Facilities/ Faculty/ Resources Needed to Offer the Minor (if any):

No additional resources are needed beyond those required for the offering of courses for the Biology and Environmental Science and Resource Management degrees.

Review and Approval:


1. Curriculum Committee Approval:

Curriculum Chair:

 Date: 12/3/02

2. Academic Senate Approval:

Chair, Academic Senate:

 Date: 12/03/01

3. Administration Approval:

President (or designee):

 Date: 12/17/01