# **Chemistry Certification (7-12)**

Students pursuing Chemistry Certification (7-12) through a UNH teacher education program must complete a B.A. or a B.S. in Chemistry, in addition to the Education Program requirements.

#### **Chemistry course requirements**

CHEM 400 Freshman Seminar

CHEM 403 & 404 General Chemistry

CHEM 517 &518 Quantitative Analysis

CHEM 547 & 549 Organic Chemistry I & Lab

CHEM 548 & 550 Organic Chemistry II & Lab

CHEM 574 Introduction to Inorganic Chemistry

CHEM 683 & 685 Physical Chemistry I & Lab

CHEM 684 & 686 Physical Chemistry II & Lab

CHEM 762 & 763 Instrumental Methods of Chemical Analysis & Lab

CHEM 698 Seminar

CHEM 699 Thesis

CHEM 755 & 756 Advanced Organic Chemistry & Lab

CHEM 774 & 775 Advanced Inorganic Chemistry & Lab

CHEM 776, Physical Chemistry III

### **Other Requirements**

All majors: MATH 425 & 426, Calculus I & II, BMCB 658 General Biochemistry or BMCB 751 Principles of **Biochemistry** 

**B.S. degree**: PHYS 407 & 408, General Physics I & II; one chemistry-related course

**B.A. degree**, chemistry major: PHYS 407, General Physics I, or PHYS 401 & 402, Introduction to Physics I & II; two other CHEM courses, except 698, or two approved chemistry-related courses.

#### **Education course requirements**

\*EDUC 500/935A Exploring Teaching

EDUC 700/800 Educational Structure & Change

EDUC 701/801 Human Development & Learning: Educ Psyc

\*EDUC 705/805 Contemporary Educ Perspectives

EDUC 707/807 Teaching Reading through the Content Areas

EDUC 751B/851B Educating Exceptional Learners: Secondary

EDUC 791/891 Methods of Teaching Secondary School Science

EDUC 900A & EDUC 901A Internship & Seminar in Teaching (2 semesters Fall and Spring)

\*Indicates course work must be completed before the internship

Any Education course taken for a teacher licensure requirement must be completed with a grade of **B**- or better. This applies to any courses from other departments that have been designated as equivalent to an Education course.

## Degrees (Minimum of 32 Graduate credits)

M.Ed. In addition to the 12 credit internship, 10 graduate	M.A.T. In addition to the 12 credit internship, three
credits must be UNH Education courses. The remaining	graduate level courses (9-12 credits) must be in Chemistry.
graduate credits can be in Education, English or another	The remaining graduate credits can be in Chemistry,
department.	Education or another department.

Admission to the M.Ed. or M.A.T. is competitive and requires submission of an application to the UNH Graduate School. This includes official transcripts, scores from the Praxis Core exam, personal statement and three letters of recommendations. Thirty-two (32) Graduate credits are the minimum for either degree.

For questions regarding Science course requirements contact Professor Chris Bauer at chris.bauer@unh.edu For questions regarding Education course requirements contact Cindy Glidden at cindy.glidden@unh.edu

# Chemistry course requirements for students who have completed a baccalaureate degree at a school other than UNH

Students seeking certification as teachers of Chemistry (grades 7-12) through the University of New Hampshire are expected to have a major in Chemistry or its equivalent. In order to be certified, they must have completed the following subject area requirements, through undergraduate or graduate coursework.

CHEM 403 & 404 General Chemistry Equivalent course
CHEM 517 &518 Quantitative Analysis Equivalent course
CHEM 547 & 549 Organic Chemistry I & Lab Equivalent course
CHEM 548 & 550 Organic Chemistry II & Lab Equivalent course
CHEM 574 Introduction To Inorganic Chemistry Equivalent course
CHEM 683 & 685 Physical Chemistry I & Lab Equivalent course
CHEM 684 & 686 Physical Chemistry II & Lab Equivalent course
CHEM 762 & 763 Instrumental Methods of Chemical Analysis & Lab Equivalent course
CHEM 755 & 756 Advanced Organic Chemistry & Lab Equivalent course
CHEM 774 & 775 Advanced Inorganic Chemistry & Lab Equivalent course
CHEM 776, Physical Chemistry III Equivalent course
Other Requirements All majors: MATH 425 & 426, Calculus I & II BMCB 658 General Biochemistry or BMCB 751 Principles of Biochemistry Equivalent course
<b>B.S. degree</b> : PHYS 407 & 408, General Physics I & II one chemistry-related course Equivalent course
<b>B.A. degree</b> , chemistry major: PHYS 407, General Physics I or PHYS 401 & 402, Introduction to Physics I & II Equivalent course
two other CHEM courses, except 698  or two approved chemistry-related courses.  Equivalent course