

### Coursework for Chemistry Graduate Students – Fall 2011 and Winter 2012

- 1) Your Fall TA position provides tuition remission for 10 credits of coursework in Fall 2011 and 4 credits in Winter 2012. All students must register for 10 credits of coursework for Fall 2011.
- 2) All students must attend Chemistry 611 – “Professional Skills for New Graduate Students” (1 credit) in Fall 2011. You may register for and receive credit for Chem 611 in either Fall 2011 or Winter 2012 terms.
- 3) All students must register for and attend Chemistry 612 – “Giving Scientific Presentations” (1 credit) in Winter 2012 (Winter term starts January 3, 2012).
- 4) All students must attend the seminar series (Chemistry 889A, 889C, 889D or 889E) most directly related to their research interests as well as the departmental seminar series held at 3PM on Fridays throughout the academic year. The seminar series features speakers from external institutions and also Chemistry graduate students. Students generally register 889 during their 2<sup>nd</sup> year when they present a seminar on a topic selected from the literature.

The following pages present typical course schedules for students with research interests in core disciplinary areas of chemistry. Students with interests across multiple disciplinary areas satisfy these interests by selecting elective courses from those areas.

Typical Fall 2011 schedule for a student with interests in Organic chemistry

CHEM 641 – Organic Reaction Mechanisms (3 credits)  
CHEM 640 – Problems in Organic Reaction Mechanisms (1 credit)  
CHEM 460 – Structure Determination Using Spectroscopic Methods (3 credits)  
One elective from CHEM and BCHM course offerings (3 credits)

Typical Winter 2012 schedule for a student with interests in Organic chemistry

CHEM 611 – Professional Skills for New Graduate Students (1 credit)  
CHEM 612 – Giving Scientific Presentations (1 credit)

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Students with interests in Inorganic / Materials chemistry typically select courses from the following list for Fall 2011 to suit their research interests

CHEM 611 – Professional Skills for New Graduate Students (1 credit)  
CHEM 460 – Structure Determination Using Spectroscopic Methods (3 credits)  
CHEM 625 – Separation Methods of Quantitative Analysis (3 credits)  
CHEM 641 – Organic Reaction Mechanisms (3 credits)  
CHEM 682 – Chemical Kinetics and Dynamics (3 credits)  
CHEM 684 – Chemical Thermodynamics (3 credits)  
CHEM 690 – Quantum Chemistry (3 credits)  
Elective(s) from CHEM and BCHM course offerings

Typical Winter 2012 schedule for a student with interests in Inorganic / Materials chemistry

CHEM 612 – Giving Scientific Presentations (1 credit)

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Students with interests in Analytical / Nuclear / Environmental Chemistry typically select courses from the following list for Fall 2011 to suit their research interests

CHEM 611 – Professional Skills for New Graduate Students (1 credit)  
CHEM 625 – Separation Methods of Quantitative Analysis (3 credits)  
CHEM 403 – Radiochemistry (3 credits). For students with research interest in nuclear chemistry  
CHEM 474 – Environmental Chemistry (3 credits). For students with research interests in environmental chemistry.  
Elective(s) from CHEM and BCHM course offerings

Typical Winter 2012 schedule for a student with interests in Analytical / Nuclear / Environmental Chemistry

CHEM 612 – Giving Scientific Presentations (1 credit)

Students with interests in Physical chemistry typically select courses from the following list for Fall 2011 to suit their research interests

CHEM 611 – Professional Skills for New Graduate Students (1 credit)

CHEM 682 – Chemical Kinetics and Dynamics (3 credits)

CHEM 684 – Chemical Thermodynamics (3 credits)

CHEM 690 – Quantum Chemistry (3 credits)

Elective(s) from CHEM and BCHM course offerings

Typical Winter 2012 schedule for a student with interests in Physical Chemistry

CHEM 612 – Giving Scientific Presentations (1 credit)

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Typical Electives

Any of the courses listed above

BCHM 671 – Protein Chemistry and Enzymic Catalysis

BCHM 461 – Biochemistry 1 (3 credits)

BCHM 463 – Biochemistry of Physiology (3 credits)