

CHEMISTRY DEPARTMENT PLAN OF STUDY SETUP FORM, p. 1 of 5

Proposed Program of _____ SID _____
(student's printed name) (student's ID number)

Leading to the Degree of _____ in Chemistry, Emphasizing _____
(MS or PhD) (Major within Chem)

Introduction

The Plan of Study (POS) is a formal agreement between the student, the Advisory Committee, the Department, and the University. Read the section of the Graduate School Policies dealing with the POS and the selection of the Advisory Committee. The POS lists the courses that the student and the Advisory Committee agree will give the student a course background consistent with University and Departmental requirements, the student's dissertation research objectives, and the student's future career plans.

Instructions

1. What courses should you list on your POS? Consult with your Research Director. List the courses you plan to take at Virginia Tech that will be considered essential to your graduate program in Chemistry. Do this carefully. Be sure to include the following:

- **All Students:** CHEM 5004 (Orientation to Graduate Research, 1 credit, 1st semester, only needed for those entering on or after January 1, 2009), GRAD 5004 (GTA Training Workshop, 1 credit, 1st semester, unless you were exempt), and ENGL 0014 (unless you were exempt).
- **PhD:** All Foundation Courses – those are the courses that you take because you had Proficiency Exam scores below the 60th percentile, see Orange Book. These **must** be on the Plan of Study.
- **PhD:** All courses required for the Major Area within Chemistry (see Table 4 in Orange Book).
- **PhD:** CHEM 5914 (Literature Review, 3 credits, 3rd semester), CHEM 6904 (Generating Research Ideas, 1 credit, 5th semester), and CHEM 6914 (Original Proposal, 3 credits, 6th semester), Graduate Seminar (CHEM 5944, 2 enrollments, 1 credit each, 6th and 8th semesters), and Research and Dissertation (CHEM 7994, see p. 6 for guidelines on estimating credit hours).
- **Thesis MS:** Graduate Seminar (CHEM 5944, 1 credit, 4th semester), Research and Thesis (CHEM 5994), see p. 5 for guidelines on estimating credit hours.
- **Non-Thesis MS:** Literature Review (CHEM 5914, 3 credits, 3rd semester) and Project and Report (CHEM 5904, 3 credits, final semester).

2. In which categories do you list different types of courses? The following general guidelines apply to assigning your different planned courses to PoS categories:

- *5000 and Higher Level Courses.* All 5000 and 6000 level lecture and laboratory courses, including CHEM 5004, 5944, 5914, 6904, and 6914, and GRAD 5004, should be listed in this category, as long as they are *relevant to your chemistry program*. Identify any Independent Study, Special Study, or Current Topics courses (for example “Advanced Green Chemistry”). Blank spaces are provided at the end of this category to insert courses not explicitly listed.
- *Research Courses.* This category **only** includes CHEM 5904 “Project and Report,” CHEM 5994 “Research and Thesis,” and CHEM 7994 “Research and Dissertation.”
- *4000 Level Courses.* Up to 6 total credits at the 4000 level may be listed in this category.
- *Supporting Courses.* Generally this category is used for courses below the 5000 level. All Chemistry Foundation Courses *below* the 5000 level **must** be listed here unless they are already listed in the *4000 Level Courses* category. ENGL 0014 should be listed here if you took that.

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Proposed Program of _____ for the _____ Degree in Chemistry
 (student's printed name) (MS or PhD)

Please list semesters in a term/year format following these examples: F 09, S 13, or transfer

RESEARCH COURSES			
Course	Description	Semester	Credits
CHEM 5904	Project and Report		
CHEM 5994	Research and Thesis (MS), total credits		
CHEM 7994	Research and Dissertation (PhD), total credits		
Total Credits in Research Courses			

5000 AND HIGHER LEVEL COURSES			
Course	Description	Semester	Credits
CHEM 5004	Orientation to Graduate Research		1
GRAD 5004	GTA Workshop		1
CHEM 5014	Communication Skills and Methods of Presentation		1
CHEM 5094	Grant Writing and Ethics		3
CHEM 5104	Advanced Analytical Chemistry		3
CHEM 5114	Advanced Electrochemistry		3
CHEM 5124	Analytical Spectroscopy		3
CHEM 5144	Instrument Design		3
CHEM 5174	Polymer Viscoelasticity		3
CHEM 5384	Oxidation at the Interface of Chemistry and Biology		3
CHEM 5404	Advanced Inorganic Chemistry		3
CHEM 5424	Polysaccharide Chemistry		3
CHEM 5505	Advanced Organic Chemistry I		3
CHEM 5506	Advanced Organic Chemistry II		3
CHEM 5524	Molecular Structure Determination		4
CHEM 5525	X-ray Crystallography I		3
CHEM 5526	X-ray Crystallography II		3
CHEM 5535	Synthetic Organic Chemistry I		3
CHEM 5644	Colloid and Surface Chemistry		3
CHEM 5654	Adhesion Science		3
CHEM 5664	Chemical Kinetics		3
CHEM 5704	Synthesis and Reactions of Macromolecules		3
CHEM 5914	Literature Review and Research Plan		3
CHEM 5944	Graduate Research Seminar		1
CHEM 5944	Graduate Research Seminar		1

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Proposed Program of _____ for the _____ Degree in Chemistry
 (student's printed name) (MS or PhD)

5000 AND HIGHER LEVEL COURSES, Continued from previous page			
Course	Description	Semester	Credits
CHEM 5974	Independent Study (specify in space below)		
CHEM 5984	Special Study (specify in space below)		
CHEM 5984	Special Study (specify in space below)		
CHEM 6164	Bioanalytical Methods		3
CHEM 6164	Multidimensional NMR		3
CHEM 6434	Organometallic Chemistry		3
CHEM 6464	Photochemistry		3
CHEM 6464	Physical Methods in Inorganic Chemistry		3
CHEM 6504	Chemistry of Natural Products		3
CHEM 6564	Advanced Macromolecular Chemistry		3
CHEM 6564	Bio-Organic Principles of Medicinal Chemistry		3
CHEM 6624	Chemical and Statistical Thermodynamics		3
CHEM 6634	Quantum Chemistry & Spectroscopy		3
CHEM 6664	NMR Spectroscopy in Chemistry and Polymer Science		3
CHEM 6664	Polymer Morphology		3
CHEM 6664	Group Theory in Chemistry		3
CHEM 6674	Physical Chemistry of Polymers		4
CHEM 6904	Generating Research Ideas		1
CHEM 6914	Original Research Proposal		3
Total Credits from Research Courses and 5000+ Level Graduate Courses			

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Proposed Program of _____ for the _____ Degree in Chemistry
(student's printed name) (MS or PhD)

4000 LEVEL COURSES			
Course	Description	Semester	Credits
Total Credits from 4000 Level Courses Approved for Graduate Credit (Max = 6)			

SUPPORTING COURSES			
Course	Description	Semester	Credits
Total Credits from Supporting Courses			

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Proposed Program of _____ for the _____ Degree in Chemistry
 (student's printed name) (MS or PhD)

Student's Mailing Address

Student ID Number: _____

Home phone: _____

Mobile phone: _____

Email address: _____

Lab Room: _____

Lab phone: _____

*Please list **all** faculty members **before obtaining any signatures**. A committee member's signature on this form affirms that he or she has read and approved the student's completed Plan of Study **and** the listed composition of the Advisory Committee.*

Name (please print) List Department if not CHEM	Role on Committee	Signature*
	Committee Chair (Research Director)	
	Member	
	Member	
	Member	
	Member	

Signature of Graduate Program Director: _____ Date: _____
 Paul A. Deck

Return the completed form to the Graduate Coordinator (Angie Miller). She will obtain the Department Chair's signature.

Approved: _____
 James M. Tanko, *Professor and Chair*

PLAN OF STUDY, Supplemental Form for Transfer Students

Proposed Program of _____ for the _____ Degree in Chemistry
 (student's printed name) (MS or PhD)

Transfer Courses from _____ (University)

Students should read the University Graduate Catalog for applicable policies on transfer credits. Transfer courses must (1) show a grade of B or better, (2) arise from an accredited university, and (3) have a corresponding course at Virginia Tech. No more than half of a student's graded course credits may arise from transfer courses. Credits for courses on a quarter system will be multiplied by 2/3 and rounded down. No more than one credit of seminar will be transferred. Courses equivalent to Project and Report ordinarily will not transfer. Please attach copies of any relevant transcripts.

Courses Equivalent to 5000 / 6000 Level at VT				
Course	Description	VT Equivalent	CR	VT CR
Total Credits from Graduate Transfer Courses				

Courses Equivalent to 4000 Level at VT				
Course	Description	VT Equivalent	CR	VT CR
Total Credits from 4000-Level Transfer Courses (Max 6, Dean must approve)				

Courses Equivalent to Supporting Courses at VT				
Course	Description	VT Equivalent	CR	VT CR
Total Credits from Supporting Courses (Not used on Plan of Study at all)				

Courses Equivalent to Research Courses				
Course	Description	VT Equivalent	CR	VT CR
		CHEM 7994		
		CHEM 5904		
Total Credits of Research Courses (Must have approval from Graduate Dean)				