

# Upcoming Revisions to the Chemistry Graduate Program

David S. Hage

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- ❑ Recent discussions by Chemistry faculty have resulted in the approval of several changes to the requirements to our PhD and MS programs
- ❑ One important goal of these changes is to better integrate the various parts of our graduate program and to streamline the training of our students
- ❑ Another desired consequence of these changes is to allow for greater ease in the multi-disciplinary training of our students

## *Background (Continued)*

- ❑ The following changes were approved by the Chemistry faculty at a special meeting on May 21, 2014 and will take effect in Fall 2014
  
- ❑ These changes affect the following components of our graduate program:
  - ❑ Cumulative exams
  - ❑ Research Update Interview (RUI) exam
  - ❑ Original Proposal Oral (OPO) exam
  - ❑ Division seminars

## *Who will be Affected by the Changes?*

- ❑ Incoming/new students starting Fall 2014 or later will automatically be under the new guidelines
- ❑ Students who began in Fall 2013/Spring 2014 will be under the new guidelines unless they specifically request to work under the current requirements
- ❑ Students entering before Fall 2013, and who have already taken the RUI exam or are MS track, will continue to be under the current system, although there will be some changes in the seminars that will have some affect on their training

# Change 1 – Cumulative Exams

- ❑ As of Fall 2014, Cumulative exams will **no longer be required** for **incoming students**, or students who will completing their studies under the new departmental requirements
- ❑ Unless requested by the student, this will be the default used for students entering their 2<sup>nd</sup> year
- ❑ Cumulative exams will still be offered, as needed, for any 2-3<sup>rd</sup> years students who still have a few exams left to take to fulfil their degree requirements
- ❑ This change does not affect students who have completed their cumulative exams

# Change 2 – Research Update Interview (RUI)

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- ❑ A Written Component will be included as part of the RUI Exam for entering graduate students or those under the new system
- ❑ The RUI will occur slightly later than before, now taking place before Mar 1 (or Nov 1) of the 4<sup>th</sup> semester
- ❑ The Written Component should cover the background, methods, preliminary results, and future directions of the student's research
- ❑ The Oral component will be the same as before (20-30 min in a style suitable for delivery as a presentation at an ACS meeting)

# Change 2 – RUI (Continued)

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- ❑ The written component should be prepared in accordance with guidelines for an ACS journal, and be 5-10 pages in length (doubled spaced, 1 inch margins for text, 11 pt font)
- ❑ The page length includes only the text portion of the written component and does not include the cover page, abstract, references, tables, figures and schemes which may be part of the written report
- ❑ The written report should be distributed to the supervisory committee one week before the RUI exam

# Change 2 – RUI (Continued)

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- ❑ The Supervisory Committee will expect a student's written and oral reports to demonstrate:
  - An understanding of the fundamental principles underlying the research project,
  - An appreciation of the rationale for the work
  - An awareness of the current and past literature relating to the project
  - A working knowledge of the tools necessary to undertake the research
  - Preliminary results



# Change 3 – Original Proposal Oral (OPO)

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- ❑ The format and requirements for the OPO are essentially the same as under the prior system.
- ❑ The only change for new students, or those under the new system, is that the OPO exam will occur slightly sooner than before, now taking place before Dec 1 (or Apr 1) of the 5<sup>th</sup> semester
- ❑ This change in deadlines **does not** affect students who have already taken their RUI exam and who will be taking their OPO exam this coming academic year

# Change 4 – Seminar Requirements

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- ❑ The former division seminars are being reorganized and combined into three seminars (tentative titles shown):
  - ❑ Analytical/Bioanalytical (ABA)
  - ❑ Organic/Chemical Biology (OCB)
  - ❑ Physical/Inorganic/Materials (PIM)
- ❑ In the new system, the seminars can be taken for either credit (2 required for PhD, 1 for MS) or Pass/No Pass (4 required for PhD, 3 for MS)
- ❑ The times and locations (and official course numbers) for the seminars are still being finalized

# Change 4 – Seminar Requirement (Cont'd)

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- ❑ In the new system, the seminars can be taken for either credit (2 required for PhD, 1 for MS) or Pass/No Pass (4 required for PhD, 3 for MS)
- ❑ When taking the seminar for credit, a PhD student will give two ~45 min presentations, while an MS student will give one ~45 min presentation
- ❑ When taking the seminar as Pass/No Pass, the grade will be based on participation
- ❑ These requirements need not be completed within a single divisional seminar program, but may be satisfied through participation and presentation in a combination of the divisional offerings as appropriate to a student's research interests

# Change 4 – Types of Seminars

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## ❑ Thematic Literature Survey (TLS)

- This type of seminar will focus on multiple articles from the primary literature which bear on some topic of currently active research in chemistry
- The topic should also bear relevance to the student's area of research

## ❑ Graduate Research Seminar (GRS)

- This type of seminar will focus on a student's graduate research results and accomplishments

## ❑ Both types should approach the form and scope typically seen in the Department of Chemistry Colloquia

# Change 4 – Other Notes on Seminars

- ❑ The combination of thematic literature seminars and graduate research seminars to be taken by a student will be specified by the student's supervisory committee
- ❑ Regardless of whether they are taking a seminar for credit a given semester, all graduate students are expected to actively participate in the divisional seminar program throughout their course of study.

# What Will be the Combined Effect of these Changes?

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## Former Ph.D. trajectory: years 1-3

<i>Year, Semester</i>	<i>General Requirements</i>	<i>Divisional Seminars</i>	<i>Comprehensive Examination</i>
Y1, S1	ACS Exams (x1) Coursework	+	
Y1, S2	ACS Exams (x2) Coursework	+	"Free" Cumulative Exam
Y2, S1	Coursework	++	Monthly Cumulative Exams Research Update Interview
Y2, S2	(Coursework)	++	Monthly Cumulative Exams
Y3, S1	(Coursework)		(Monthly Cumulative Exams)
Y3, S2	(Coursework)		(Monthly Cumulative Exams) Original Proposal Oral Exam

# What Will be the Combined Effect of these Changes?

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## New Ph.D. Trajectory: years 1-3

<i>Year, Semester</i>	<i>General Requirements</i>	<i>Divisional Seminars</i>	<i>Comprehensive Examination</i>
Y1, S1	ACS Exam, Coursework, CHEM 898A	Participant (P/NP)	
Y1, S2	Coursework	Participant (P/NP)	
Y2, S1	RUI Course – CHEM 898B	Presentation (e.g. Literature)	
Y2, S2	OPO Course – CHEM 898D (2 <sup>nd</sup> half semester)	Participant	RUI Exam (~1 <sup>st</sup> half semester)
Y3, S1		Participant	OPO Exam
Y3, S2		Presentation (e.g., Research)	

## What are the Expected Benefits?

- ❑ Fewer, but more focused requirements in the comprehensive exam component of the PhD and MS programs
- ❑ Increased research productivity (papers & presentations by students)
- ❑ More effective supervision of a student's progress in their program
- ❑ Anticipated decreased in time to graduation
- ❑ Better integration of the various parts of the graduate program
- ❑ Greater ease of multi-disciplinary training