

**Washington State University**  
**MAJOR CURRICULAR CHANGE FORM - - NEW/RESTORE COURSE**

- ☐ Please attach rationale for your request, a complete syllabus, and explain how this impacts other units in Pullman and other campuses (if applicable).
- ☐ Obtain all required signatures with dates.
- ☐ Provide original stapled packet of signed form/rationale statement/syllabus PLUS 10 stapled copies of complete packet to the Registrar's Office, campus mail code 1035.
- ☐ Submit one electronic copy of complete packet to [wsu.curriculum@wsu.edu](mailto:wsu.curriculum@wsu.edu).

Requested Future Effective Date: Fall 2016 (term/year) Course Typically Offered: Fall and Spring

**DEADLINES:** For fall term effective date: **October 1<sup>st</sup>**; for spring or summer term effective date: **March 1<sup>st</sup>**. See instructions.

**NOTE:** Items received after deadlines may be put to the back of the line or forwarded to the following year. Please submit on time.

☐ New Course

☐ Temporary Course

☒ Restore Course

CHEM

591

Seminar in Inorganic Chemistry

course subject/crosslist

course no.

title

1 ( 1 - 0 )

Credit hrs

lecture hrs

lab or studio

prerequisite

per week

hrs per week

Description for catalog: Presentation and discussion of topics in inorganic chemistry taken from research in progress or current literature.

**Additional Attributes: Check all that apply.**

☐ Crosslisting (between WSU departments)\*

☐ Conjoint listing (400/500): \_\_\_\_\_

☐ Variable credit: \_\_\_\_\_

☒ Repeat credit (cum. max. hrs): 6

Special Grading: ☐ S, F; ☐ A, S, F (PEACT only); ☐ S, M, F (VET MED only); ☐ H, S, F (PHARMACY, PHARDSCI only)

☐ Cooperative with UI

☐ Other (please list request ): \_\_\_\_\_

**The following items require prior submission to other committees/depts. (SEE INSTRUCTIONS.)**

☐ Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval.)

☐ Request to meet UCORE in \_\_\_\_\_ (Must have UCORE Committee Approval > > See instructions.)

☐ Special Course Fee \_\_\_\_\_ (Must submit request to University Receivables.)

Contact: Scot Wherland Phone number: (509) 335-3360 Campus mail code: 4630

Email: scot\_wherland @wsu.edu Instructor, if different: Profs. Heiden and Benny

\_\_\_\_\_  
Chair/date

\_\_\_\_\_  
Dean/date

\_\_\_\_\_  
All-University Writing Com Date

\_\_\_\_\_  
Chair (if crosslisted/interdisciplinary)\*

\_\_\_\_\_  
Dean (if crosslisted/interdisciplinary)\*

\_\_\_\_\_  
UCORE Committee Approval Date

\_\_\_\_\_  
Catalog Subcommittee Approval Date

\_\_\_\_\_  
GSC or AAC Approval Date

\_\_\_\_\_  
Faculty Senate Approval Date

**\*If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.**

#### Major Curricular Change: Restore Chem 591

This request is for the restoration of Chem 591: Seminar in Inorganic Chemistry. We have had fewer Inorganic Chemistry graduate students for several years but now have more, especially with the hiring of one new faculty member and a search for a second. The structure of the course, 1 credit and repeat for up to 6 credits, matches our other seminar courses.

Organizing the seminar will not require any additional faculty resources beyond those already available.

The graduate program in chemistry has been growing, and with current new hires this is especially true in the area of Inorganic Chemistry. In order to make the student's transcript as meaningful as possible it is appropriate to have the required seminar course carry the title of the sub discipline.

## Chemistry 591

### Seminar in Inorganic Chemistry

Fall 2016

1 Credit

Wednesday 4:10 – 5:00

Fulmer 150

**Prerequisite:** Recommended: Chem 301 or 401 or an equivalent class in inorganic chemistry

**Instructor:** Professors Paul Benny and Zachariah Heiden

**Prof. Benny:**   **Office:** Fulmer 639C,   **Phone:** 335-3858   **Email:** [bennyp@wsu.edu](mailto:bennyp@wsu.edu)

**Office Hours:** by appointment

**Prof. Heiden:**   **Office:** Fulmer 40   **Phone:** 335-0936   **Email:** [zachariah.heiden@wsu.edu](mailto:zachariah.heiden@wsu.edu)

**Office Hours:** by appointment

**Course website:** Blackboard <https://learn.wsu.edu/>

**Course Materials:** *The Craft of Scientific Presentations: Critical Steps to Succeed and Critical Errors to Avoid* by Michael Alley (ISBN 978-0387955551) (optional)

#### Format

Students will be expected to present a 50 minute seminar based on the literature or on their own research, and participate in the discussion of those presented by other students.

#### Student Learning Outcomes (SLOs)

Chemistry 591 is designed to advance students toward the WSU Learning Goals, especially Scientific Literacy, Critical and Creative Thinking, Quantitative Reasoning, Communication, and Information Literacy. This course will provide graduate students the opportunity to demonstrate their knowledge in inorganic chemistry through an oral presentation and questions to seminar speakers. The level of the course assumes an entering graduate student with a B.S. in Chemistry with some experience with the topic of inorganic chemistry.

By the end of the course it is expected that every student will:

- 1) Be able to create a 50 minute presentation discussing a literature topic or their current research.
- 2) Cite the chemical literature where appropriate.
- 3) Introduce a current topic in inorganic chemistry so that it can be understood by a first year graduate student.
- 4) Present and defend possible interpretations of the results and the design of any further studies that would clarify the interpretation.
- 5) Respond to questions from the audience in a way that demonstrates depth of understanding of the material.
- 6) Prepare a two page abstract including references describing the main points/highlights of the seminar.
- 7) Ask questions during presentations given by others that show understanding of the presentation and how it relates to other work.

## Assessment

<b>Student Learning Outcomes</b>	<b>Course Topics/Dates</b>	<b>Evaluation of Outcome:</b>
<b>At the end of this course, students should be able to:</b>	<b>The following topic(s)/dates(s) will address this outcome:</b>	<b>This outcome will be evaluated primarily by:</b>
Create a 50 minute presentation in PowerPoint or similar presentation software that is clear with appropriate graphics.	Student's own presentation	The presentation will be evaluated by the faculty based on attached evaluation criteria (see attached sheet)
Cite the literature as appropriate.		
Introduce a current topic in Inorganic Chemistry so that it can be understood by a first year chemistry graduate student.		
Present new research results, either from the literature or from the student's own work.		
Present and defend possible interpretations of the results and the design of any further studies that would clarify the interpretation.		
Respond to questions from the audience in a way that demonstrates depth of understanding of the material.		
Prepare a two page abstract including references describing the main points/highlights of the seminar.		
Ask questions during presentations given by others that show understanding of the presentation and how it relates to other work.	Presentations by others	The student will be expected to attend and ask questions at each presentation. Absence or lack of participation will result in a lower grade.

## **Grading Policy**

Students will be graded based on the attached rubric. An average of the scores will be converted into a grade as follows: A: 3.5 to 4, B: 2.5 to 3.5; C: 1.5 to 2.5; D: 1 to 1.5. The course grade will be lowered by one step (i.e. B to B<sup>-</sup>) for each unexcused absence or lack of participation in the discussion after a presentation.

## **Topic Selection and Abstract**

**Literature Talks:** Choose a topic wisely, discussing it with your advisor and the inorganic student seminar instructor. You must get approval of the seminar topic on the attached form from your advisor and the instructor. You can choose a topic in virtually any area of inorganic chemistry, but you cannot discuss a topic that has been presented within the last five years, unless there have been significant advances since then. A list of these topics is available. You can pick a subject that is tangential to your own research project, but it should not be on the same subject as your research project. Current, interesting, and timely topics of interest to a range of students and faculty are ideal.

**Research Talks:** Title should be brief yet sufficiently descriptive of your research.

**Abstracts:** Seminars will require two abstracts. One abstract summarizing your literature topic/research in one paragraph (about 100-500 words) will need to be submitted to Stacie Olsen-Wilkes (stacie37@wsu.edu) in Fulmer 305B by noon on the Friday before your seminar. The second abstract should be no longer than 2 pages and must include: 1. Title, 2. Your name, 3. Seminar Date, 4. At least one figure / graphical material, 5. A brief summary of your seminar highlighting the main results, and 6. References. It is highly recommended that you have several of your peers as well as your advisor read over your abstracts before submission. Your two page abstract will need to be submitted to Stacie Olsen-Wilkes (stacie37@wsu.edu) in Fulmer 305B by noon on the Friday before your seminar, so that paper copies of your abstract will be available by the date of your seminar.

## **Presentation**

Presentations must be practiced at least 1 time with your advisor and research group prior to the formal presentation. It is highly recommended that you practice as often as it takes to perfect the talk. The benefits of practicing your talk out loud in front of a live audience cannot be overemphasized. Your talk should be 50 minutes long and presented using a graphical format (such as PowerPoint).

A student of your choosing will introduce you. You should coordinate with the individual that you choose to introduce you to provide information about your background. On the day of your talk, it is your responsibility, prior to your scheduled time, to gather all necessary materials such as projectors, microphone, pointer, and make sure they work. Be prepared for questions during and after your talk. These often serve to clarify unclear points, check further advances in the field, and check your thoroughness in researching your chosen topic.

## **Evaluation**

You will also be evaluated by the faculty according to the attached rubric. You must contact the instructor by 5pm on the Friday following your presentation to schedule a time to follow-up regarding your evaluation.

## **Workload Statement**

It is WSU policy that for every hour of in-class instruction, or equivalent online instruction, that students should expect at least 2 hours of outside class course preparation in the form of reading, course assignments, and review of previous lectures.

## **Students with Disabilities**

Reasonable accommodations are available for students with a documented disability. If you have a disability and need

accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist.

**Academic Integrity**

I encourage you to work with classmates as you prepare your seminar. However, each student must present a unique seminar. No copying will be accepted. Students who violate WSU's Standards of Conduct for Students will receive an F as a final grade in this course, will not have the option to withdraw from the course and will be reported to the Office of Student Conduct. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions.

**Safety and Emergency Notification**

Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (<http://safetyplan.wsu.edu/>) and visit the Office of Emergency Management web site (<http://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

**Chem 591 Evaluation Rubric**

<b>Content</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Knowledge	Student demonstrates full knowledge by answering all class questions with explanations and elaboration.	Student is at ease with expected answers to all questions, without elaboration.	Student is uncomfortable with information and is able to answer only rudimentary questions.	Student does not have grasp of information; student cannot answer questions about subject.
Organization	Student presents information in logical, interesting sequence which audience will follow	Student presents information in logical sequence which audience can follow.	Audience has difficulty following presentation because student jumps around.	Audience cannot understand presentation because there is no sequence of information.
Mechanics	Presentation has no misspellings or grammatical errors	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	Student's presentation has four or more spelling and/or grammatical errors.
<b>Verbal Skills</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Enthusiasm	Demonstrates a strong, positive feeling about topic during entire presentation.	Occasionally shows positive feelings about topic.	Shows some negativity toward topic presented.	Shows absolutely no interest in topic presented.
Elocution	Student uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	Student's voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.	Student's voice is low. Student incorrectly pronounces terms. Audience members have difficulty hearing presentation.	Student mumbles, incorrectly pronounces terms, and speaks too quietly for a majority of students to hear.
Language	Language choices are vivid and precise, could "code- switch" (use a different language form) when appropriate to keep the audience engaged.	Language is appropriate, but word choices are not particularly vivid or precise.	Language choices may be limited, peppered with slang or jargon, too complex, or too dull.	Language is questionable or inappropriate for a particular audience, occasion, or setting. Some biased or unclear language may be used.
<b>Nonverbal skills</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Eyecontact	Holds attention of entire audience with the use of direct eye contact, seldom looking at notes.	Consistent use of direct eye contact with audience, but still returns to notes.	Displayed minimal eye contact with audience, while reading mostly from the notes.	No eye contact with audience, as entire report is read from notes.
Body language	Movements seem fluid and help the audience visualize.	Made movements or gestures that enhances articulation.	Very little movement or descriptive gestures.	No movement or descriptive gestures.
Poise	Student displays relaxed, self-confident nature about self, with no mistakes.	Makes minor mistakes, but quickly recovers from them; displays little or no tension.	Displays mild tension; has trouble recovering from mistakes.	Tension and nervousness is obvious; has trouble recovering from mistakes.