

Course Change Request

Date Submitted: 10/22/21 11:18 am

Viewing: CHEM 441 : Properties and Bonding of Inorganic Compounds

Last approved: 05/08/20 4:47 am

Last edit: 11/12/21 8:58 am

Changes proposed by: msikowit

Catalog Pages referencing this course

[Chemistry \(CHEM\)](#)
[Department of Chemistry and Biochemistry](#)

Programs referencing this course

[SC-BS-FRSC: Forensic Science, BS](#)
[SC-BS-CHEM: Chemistry, BS](#)

Select modification type:

Substantial

Are you completing this form on someone else's behalf?

No

Requestor:**Effective Term:** Fall 2022**Subject Code:** CHEM - Chemistry**Course Number:** 441**Bundled Courses:****Is this course replacing another course?** No**Old Course Number:****Equivalent Courses:****Catalog Title:** Properties and Bonding of Inorganic Compounds**Banner Title:** Properties/Bond of Inorg Comp**Language of Instruction:****Will section titles vary by semester?** No**Is this a physical activity course?****Credits:** 3**Schedule Type:** Lecture**Hours of Lecture or Seminar per week:** 3**Hours of Lab or Studio per week:****Hours of Other Contact Hours per week:**

In Workflow

1. CHEM Chair
2. SC Curriculum Committee
3. SC Associate Dean
4. Assoc Provost- Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 10/22/21 6:47 pm
Gerald Weatherspoon (grobert1):
Approved for CHEM Chair

History

1. Feb 14, 2019 by Megan Erb (msikowit)
2. May 8, 2020 by Tory Sarro (vsarro)

Repeatable: May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 9

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only): Remove CHEM 337, Add CHEM 336 with min C

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
	(	CHEM 332	C	UG		
Or		CHEM 332	XS	UG)	
And	(	CHEM 337	C	UG		
Or		CHEM 337	XS	UG)	

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

Catalog Description: Interpretation of physical and chemical properties of inorganic compounds in terms of currently used bonding concepts. Topics include molecular symmetry and applications of symmetry, structure and bonding in ionic solids; reactions and characterizations of solids; electronic and magnetic properties and applications of solids.

Justification: What: Removing the required prerequisite of CHEM 337 and replacing it when CHEM 336.
Why: This allows students more flexibility in scheduling. CHEM 337 is not required for success in CHEM 441.

Does this course cover material which crosses into another department? No

Impacted Departments:

Learning Outcomes:

Attach Syllabus

Additional Attachments

Course Objectives:

Anticipated
Audience and
Offering Frequency:

Relationship to
Current Offerings
Within
Department:

Relationship to
Current Offerings
Outside
Department:

Relationship to
Programs:

Relationship to
Existing Programs:

Relationship to
Existing Courses:

Specialized Course
Categories:

Select the Mason Core Requirement the course is proposing to fulfill:

Foundation
Courses:

Exploration
Courses:

Integration
Courses:

Application for Mason Impact

Select the requested Mason
Impact designation:

Discovery of Scholarship (RD)

Select at least one additional SaS learning outcomes which the course meets:

Scholarly Inquiry (RI)

Select any additional SaS learning outcomes which the course meets:

Impact Associated (RA)

Select the RS course which your proposed RA course will be associated with:

MI + Research/Scholarship Intensive (RS)

I. Course must meet the following learning outcomes:

II.

III.

IV.

(A) What is the rationale for designating this course as Entrepreneurship?

(B) Explain how this course meets the course criteria?

(C) How does your course fit into the educational career of an average student enrolled in the course?

(D) How will student work meet the project criteria?

(E) How does student learning progress through the course to aid students in the development of the skills needed to complete their project?

(F) Scaffold Map

V.

Select any additional SaS learning outcomes which the course meets:

Describe how the course meets the required student learning outcomes and the selected methods outcome(s):

How will the course be supported by the appropriate subject area librarian?

Attach Curriculum
Map

Please affirm the following:

List Responsible
Faculty Members:

The department has or will have an undergraduate research student learning outcome and will use the data from this course in Academic Program Review.

Mason Impact (MI)

I. Course must meet the following learning outcomes:

II.

III.

MI + Civic Engagement (CECL)

I. Course must meet the following learning outcomes:

II.

III.

IV.

(A) What is the rationale for designating this course as Entrepreneurship?

(B) Explain how this course meets the course criteria?

(C) How does your course fit into the educational career of an average student enrolled in the course?

(D) How will student work meet the project criteria?

(E) How does student learning progress through the course to aid students in the development of the skills needed to complete their project?

(F) Scaffold Map

V.

MI + Entrepreneurship (ENTR)

I. Course must meet the following learning outcomes:

II.

III.

IV.

(A) What is the rationale for designating this course as Entrepreneurship?

(B) Explain how this course meets the course criteria?

(C) How does your course fit into the educational career of an average student enrolled in the course?

(D) How will student work meet the project criteria?

(E) How does student learning progress through the course to aid students in the development of the skills needed to complete their project?

V.

Green Leaf Course Designation

The proposed course is requesting (choose one):

Below, include a brief statement regarding how this course meets either the “sustainability focused” or “sustainably related” criteria.

Sustainability-focused courses provide valuable grounding in the concepts and principles of sustainability. These courses educate students about how different dimensions of sustainability relate to and support each other in theory and practice. In addition, these courses help equip students with the skills to weave together disparate components of sustainability in addressing complex issues.

Sustainability-related courses help build knowledge about a component of sustainability or introduce students to sustainability concepts during part of the course. They may complement sustainability-focused courses by providing students with in-depth knowledge of a particular aspect or dimension of sustainability (such as the natural environment) or by providing a focus area (such as renewable energy) for a student’s sustainability studies, or they may broaden students’ understanding of sustainability from within different disciplines.

Attach Syllabus

Arts

Course must meet the first learning outcome:

Course must meet a minimum of two of the remaining four learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Arts Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Global Understanding

Course must address a minimum of three of the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Global Understanding Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Information Technology and Computing

Course must meet the following learning outcomes:

Describe the overall rationale for designating this course as Information Technology with Ethics Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Information Technology and Computing

Course must meet the following learning outcomes:

Course must meet one additional learning outcome:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Information Technology Only Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Ethics

Course must meet the following learning outcomes:

Describe the overall rationale for designating this course as Ethics Only Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Literature

Course must meet at least three of the learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Literature Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Natural Sciences with Lab

Course must meet the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Natural Sciences with Lab Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Natural Sciences Non-Lab

Courses must meet the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Natural Sciences Non-Lab Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Oral Communication

Course must address all of the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Oral Communication Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Quantitative Reasoning

Course must address all of the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Quantitative Reasoning Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Social and Behavioral Sciences

Course must meet all three learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Social and Behavioral Sciences Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Capstone

While each academic degree program defines its learning outcomes, a Capstone course or sequence should follow these guidelines:Information

- *Minimum of 3 credits*
- *Later in the curriculum, after a student has taken at least 85 credits, and at the 400 - course level*
- *No more than 35 students in the course or equivalent instructional/mentored support*
- *Emphasis on experiential/applied/integrative learning*
- *Allow students to apply critical thinking skills*
- *Learning outcomes defined by the degree program*

Explain how the course meets the expectations that the capstone experience consolidates the knowledge and understanding gained in the student's major, degree, and Mason Core Courses.

Synthesis

Course must meet learning outcomes 1 and 2:

Course must meet one additional learning outcome:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Synthesis Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Western Civilization/World History

Course must meet at least three of the following learning outcomes:

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

Describe the overall rationale for designating this course as Western Civilization/World History Mason Core.

For each learning outcome, what assignments or activities will you give that allow students to demonstrate their competence on each outcome? Please confirm these are reflected in the attached syllabus or uploaded as additional documents as needed.

Additional
Comments:

Reviewer
Comments

Key: 2253