

## Course Change Request

Date Submitted: 02/21/19 11:26 am

Viewing: **CHEM 104 : Chemistry for Changing Times Introduction to Organic, Biochemical, Pharmacological, and Fuel Chemistry**

Last approved: 08/29/17 4:18 am

Last edit: 03/18/19 2:24 pm

Changes proposed by: gcraft

Catalog Pages referencing this course	<a href="#">Chemistry (CHEM)</a> <a href="#">Department of Chemistry and Biochemistry</a>
Programs referencing this course	<a href="#">LA-BS-INTS: Integrative Studies, BS</a>

Select modification type:

~~Specialized Course Designation~~  
**Substantial**

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

No

Effective Term: Spring 2019

Subject Code: CHEM - Chemistry

Course Number: 104

Bundled Courses:

Is this course replacing another course? **No**

Equivalent Courses:

Catalog Title: **Chemistry for Changing Times Introduction to Organic, Biochemical, Pharmacological, and Fuel Chemistry**Banner Title: **Chemistry for Changing Times Int Organ/Biochem/Phar/Fuel Ch**

Will section titles vary by semester? No

Credits: 4

Schedule Type: Lecture w/Lab

Hours of Lecture or Seminar per week: 3

Hours of Lab or Studio per week: 3

Repeatable: May ~~only~~ be **only** taken once for **credit, limited to 3 attempts (N3) credit (NR)**  
**\*GRADUATE ONLY\***Max Allowable Credits: **12**

Default Grade Mode: Undergraduate Regular

### In Workflow

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

### Approval Path

1. 02/21/19 1:49 pm  
Tory Sarro (vsarro):  
Approved for Registrar-Courses:Title Change
2. 02/21/19 4:38 pm  
Gerald Weatherspoon (grobert1):  
Approved for CHEM Chair

### History

1. Aug 29, 2017 by  
Priyanka Champaneri (pchampan)

Recommended  
Prerequisite(s):

Recommended  
Corequisite(s):

Required  
Prerequisite(s) /  
Corequisite(s)  
(Updates only):

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

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?

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:

~~Modern and historical accounts of organic chemistry, biochemistry, pharmacology, and fuel chemistry.~~ **Modern course in chemistry to explore and discover chemistry in Topics include the 21st century as it applies to chemistry of carbon containing compounds, polymers, synthesis of polymers and their utility and use in the modern world, biomolecules, DNA and animal cloning, embryonic stem cells, the chemical structure and biological activity of drugs and fuels emphasizing medicines, and fuel chemistry including petroleum through green chemistry. chemistry and the future.** ~~Relationship of chemistry as a central science in topics such as novel polymers, amino acids and proteins, post-translational modifications, cancer, aids, medicines and the opioid crisis, stem cells, cloning of DNA and organisms, sustainable and non-sustainable fuels and sources of energy in these changing times. Topics include examples from organic chemistry, conformational analysis, stereochemistry, genetics, protein-protein interactions, forensic science, engineering and biology. Chemistry of relevance and impact to individuals, environments and global perspectives with an emphasis on current societal concerns. (CHEM 104 requires concomitant registration in a 104 lab section.)~~ **Notes: laboratory section).** ~~Notes:~~ Not open to students majoring in **Chemistry, not intended for science majors or credit for 211 and 213.** ~~chemistry. Credit will not be given for both CHEM 104 and CHEM 212~~

Justification:

Same course, more modern course description.

CHEM 102 and CHEM 104 are titled the same. CHEM 102 does not include a lab and is a Mason Core Natural Science Overview course (3cr). CHEM 104 requires a lab and is a Mason Core Natural Science with Lab (4cr).

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

Learning Outcomes:

Attach Syllabus

Additional  
Attachments

Specialized Course Categories: Mason Core

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

Foundation  
Courses:

Exploration  
Courses:           Natural Sciences w/Lab

Integration  
Courses:

### Natural Sciences with Lab

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Course must meet the following learning outcomes:

1. Understand how scientific inquiry is based on investigation of evidence from the natural world, and that scientific knowledge and understanding: a) evolves based on new evidence, and b) differs from personal and cultural beliefs
2. Recognize the scope and limits of science.
3. Recognize and articulate the relationship between the natural sciences and society and the application of science to societal challenges (e.g., health, conservation, sustainability, energy, natural disasters, etc.).
4. Evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information).
5. Participate in scientific inquiry and communicate the elements of the process, including: a) making careful and systematic observations, b) developing and testing a hypothesis, c) analyzing evidence, and d) Interpreting results.

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

Additional  
Comments:

administrative changes in prep for CIM launch

Reviewer  
Comments

Key: 2196