


CHEM 102 College Chemistry II-CrsRvs-2019-11-06

The workflow icon is no longer available. Please click on the Page Status after the orange circle icon near the page title. *

Form Information

 The page you originally access is the global template version. To access the template document that progresses through the workflow, please complete the following steps:

First Step : ONLY change the bracketed text in the proposal name to match one of the following naming formats. You should remove the brackets as you do so.

For a course revision proposal: SWST 201 Sidewalk Construction and Planning-CrsRvs-2019-09-02

For a course deletion proposal, you may modify the page code: SWST 217 Construction of Cobblestone Sidewalks- CrsDel-2019-09-02

For a course revision that includes a new request for distance education approval, you may modify the page code: SWST 440 Computer-Aided Sidewalk Design- CR/DE-2019-09-02

Note - you generally do not need to request DE approval again if the course is already on the approved list: [ALL APPROVED DE COURSES](#)

[CLICK HERE TO SEE](#)

Second Step: Click "SAVE" on bottom right

DO NOT TYPE ANYTHING INTO THE FIRST PAGE OTHER THAN THE TEXT IN BRACKETS

- **Please be sure to remove the Brackets while renaming the page**

Third Step: Make sure the word DRAFT is in yellow at the top of the proposal

Fourth Step : Click on "**EDIT CONTENTS**" (*not EDIT*) and start completing the template. When exiting or when done, click "**SAVE**" (*not Save Draft*) on bottom right

When ready to submit click on the Page Status link next to the orange circle icon and hit approve. It will then move to the chair as the next step in the workflow.

**Indicates a required field*

Proposer*	Sanda Maicaneanu	Proposer Email*	sanda.maicaneanu@iup.edu
Contact Person*	Sanda Maicaneanu	Contact Email*	sanda.maicaneanu@iup.edu
Proposing Department/Unit*	Chemistry	Contact Phone*	724-357-2277

Course Level*
undergraduate-level

Course Revisions

(Check all that apply; fill out categories below as specified; i.e. if only changing a course title, only complete Category A)

Category B:
Category A:

course_revision
liberal-studies

* Teacher Education: Please complete the Teacher Education section of this form (below)

* Liberal Studies: Please complete the Liberal Studies section of this form (below)

* Distance Education: Please complete the Distance Education section of this form (below)

Check the APPROVED DE Course List - ON THE I-WIKI DOCUMENTS PAGE before completing the Distance Education (DE) section. If the course is already approved for Distance Education, you DO NOT need to do another DE proposal.

Rationale for Proposed Changes (All Categories)

<p>(A) Why is the course being revised/deleted:*</p> <p><i>Please be specific - this should be have more detail than the Summary for the Senate.</i></p>	<p>CHEM 102 College Chemistry II is being revised in order to align the course Student Learning Outcomes (SLOs) with the Expected Undergraduate Student Learning Outcomes (EUSLOs) that underpin the Liberal Studies program. The proposal also describes the methods by which the SLOs are assessed.</p>
<p>(B) University Senate Summary of Rationale*</p>	<p><i>Please enter a single paragraph summary/rationale of changes or proposal for University Senate.</i></p> <p>CHEM 102 College Chemistry II is being revised in order to align the course Student Learning Outcomes (SLOs) with the Expected Undergraduate Student Learning Outcomes (EUSLOs) that underpin the Liberal Studies program. The proposal also describes the methods by which the SLOs are assessed.</p>
<p>(C) Implications of the change on the program, other programs and the Students:*</p>	<p>The proposal has no implications for students, chemistry programs, or other programs.</p>

Current Course Information*	
Category A	
(D) Current Prefix*	CHEM
Proposed Prefix	
(E) Current Number*	102
Proposed Number	
(F) Current Course Title*	College Chemistry II
Proposed Course Title	
(G) Current Prerequisite(s)	CHEM 101
Proposed Prerequisite(s)	<p><i>Note: if the current prerequisite is being dropped, you must state that clearly here: "Prerequisite is being changed to none." If it is being kept, you should repeat it here. <u>Please do not leave either prerequisite field blank.</u> If both the current and proposed rerequisites are 'none', please write 'none' in both boxes.</i></p>

(J) Number of h6 188.0k7.25 90.3rB89.49 91.5 93.26 188.04 93.26 c 13 188.0k7.25 90oc 187.25 90elar4c 187.25 90elar4c 187.25 90elar4c 187.253.26 c

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- Structures, formulas, names (nomenclature system) of carboxylic acids, esters, anhydrides.
- Physical properties.
- Chemical reactions including acidity, esterification, saponification, hydrolysis. Importance of phosphate esters and anhydrides to biological reactions.
- Esters as flavor compounds and pain relievers.

7. Amines and Amides

- Structures, formulas, names (nomenclature system) of amines and amides.
- Physical properties.
- Chemical reactions including basicity of amines, synthesis and hydrolysis of amides.
- Practical applications/everyday uses.

8. Stereoisomerism

- Identification of chiral molecules, tetrahedral stereocenters.
- Optical activity of enantiomers.
- Chemical reactivity of enantiomers.
- Importance of enantiomers to synthetic drug molecules (side effects).

9. Carbohydrates

- Chemical structures of carbohydrates including mono-, di- and polysaccharides.
- Physical and chemical properties of carbohydrates, including stereochemistry.
- Biological and nutritional roles of carbohydrates.
- Structure/function relationships.

10. Lipids

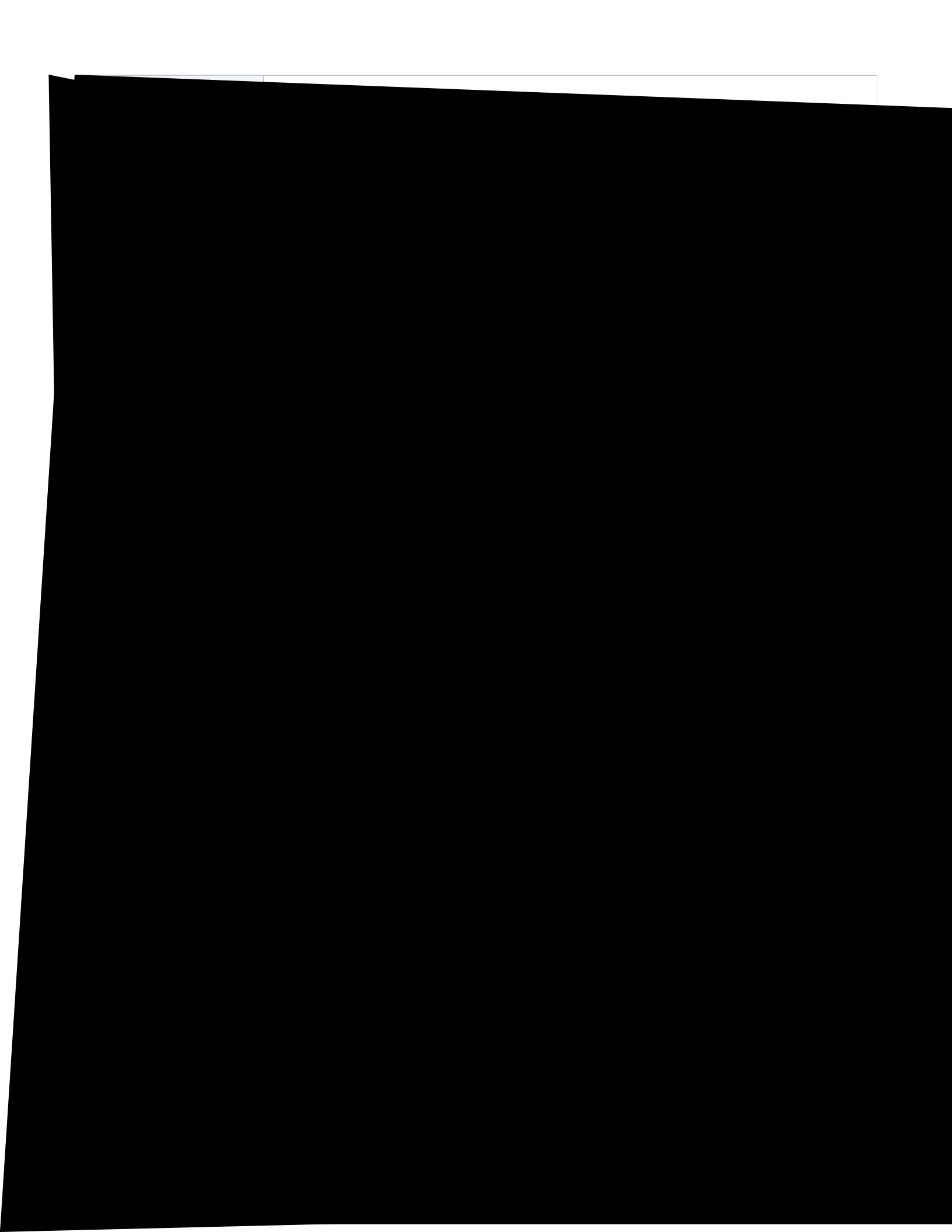
- Chemical structures of lipids including fatty acids, triacylglycerols, phospholipids, sphingolipids, steroids, eicosanoids, fat soluble vitamins.
- Physical and chemical properties of lipids.
- Biological and nutritional roles of lipids. Structure/function relationships.
- Structure and importance of biological membranes.

11. Proteins

- Chemical structures of amino acids.
- Peptide bond formation.
- Physical and chemical properties of proteins.
- Levels of protein structure.
- Protein denaturation.
- Biological and nutritional roles of proteins.
- Structure/function relationships.

12. Nucleic Acids

- Chemical structures of nucleic acids.
- Three-dimensional structures of DNA and RNA.
- The genetic code.
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