

Curriculum Committee



Change of Course Proposal

School or Division	School of Pure and Applied Sciences
Program or Certificate	Associates in Science, Associates in Arts
Proposed by (faculty only)	Rebecca Page
Presenter (faculty only)	Rebecca Page
Note that the presenter (faculty) listed above must be present at the Curriculum Committee meeting or the proposal will be returned to the School or Division and be resubmitted for a later date.	
Submission date	8/30/2017
Current course prefix, number, and title	CHM 2046 General Chemistry II

Section I, Proposed Changes

Change to course prefix and number Lecture/lab course combined must include "C" / lab course must include "L"	List new course prefix and number
Provide justification for the proposed prerequisite(s).	
Change to course title	List new course title
Change of School, Division, or Department	List new school, division, or department
Change to course prerequisite(s) and minimum grade(s) (must include minimum grade if higher than a "D")	From: To:
Change to course co-requisites	From: To:
Provide justification for the proposed co-requisite(s).	
Is any co-requisite for this course listed as a co-requisite on its paired course? (Ex. CHM 2032 is a co-requisite for CHM 2032L, and CHM 2032L is a co-requisite for CHM 2032)	Choose an item.  List the co-requisite
Change to course credits or clock hours	From: To:
Change to contact hours (faculty load)	From:

	To:
Change to grade mode	Choose an item.
Change to credit type	Choose an item.
Change to course description (provide below)	
This course is the second part of the two-semester general chemistry sequence. It covers thermodynamics, equilibrium, kinetics, oxidation-reduction, electrochemistry, and properties of solutions.	
Type in entire new course description here	

Change to general topic outline (type in entire new outline below)
<ul style="list-style-type: none"> <li>• Add Properties of solutions.</li> <li>•</li> </ul>

Change to Learning Outcomes: For information purposes only.

<p><b>IV. Course Competencies, Learning Outcomes and Objectives</b></p> <p><b>A. General Education Competencies and Course Outcomes</b></p> <p>1. Integral <i>General Education Competency or competencies</i>:</p> <ul style="list-style-type: none"> <li>• Using correct terminology, explain the laws of thermodynamics.</li> <li>• Solve numerical problems involving enthalpy, entropy, and free energy changes for physical and chemical processes.</li> <li>• Analyze the significance of the fundamentals of rates and mechanisms to chemical reactions.</li> <li>• Solve numerical problems involving rates, rate laws, reaction orders, concentrations, activation energy, and temperature dependence of rate.</li> <li>• Compare and contrast the fundamentals of chemical equilibrium.</li> <li>• Solve equilibrium problems involving homogeneous and heterogeneous systems.</li> <li>• Evaluate the Arrhenius, Bronsted-Lowry, and Lewis acid-base systems and classify acids and bases into the appropriate systems.</li> <li>• Predict relative strengths of selected binary and ternary acids.</li> <li>• Solve numerical problems involving acid-base and oxidation-reduction reactions in aqueous solutions.</li> <li>• Use the concepts of pH/pOH to solve numerical problems involving strong and weak acids and bases and polyprotic acids.</li> <li>• Recognize and appraise buffer systems and acid-base titration curves.</li> <li>• Analyze chemical equilibria involving slightly soluble salts and complex ions.</li> <li>• Solve numerical problems involving equilibria of sparingly soluble salts and complex ions.</li> <li>• Describe the fundamentals of galvanic and voltaic electrochemical cells and the mathematical description of both electrolytic and galvanic cells in terms of</li> </ul>
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spontaneity and electrode potentials.

- Balance oxidation reduction reactions.
- Solve numerical problems involving electrochemical cell potentials, concentrations of electroactive species, thermodynamic and
- equilibrium aspects of electrochemical cells
- Explain and evaluate the dissolution process (including the effects of pressure and temperature on solubility) and selected colligative properties, and calculate concentration units.

2. Supplemental *General Education Competency or competencies*:

**B. In accordance with Florida Statute 1007.25 concerning the state's general education core course requirements, this course meets the general education competencies for ....**

Part B would only be included in the course outlines of those courses are included in the FSW Catalog as a General Education Core Course. If this is not a core course, then outline letter C would become B.

**C. Other Course Objectives/Standards**

**Section II (must complete each item below)**

Should any major restrictions be listed on this course? If so, select "change" and list the appropriate major restriction codes or select no change.	Choose an item. List applicable major restriction codes
Change course to an "International or Diversity Focus" course?	Choose an item.
Change course to a General Education course?	Choose an item.
Change course from General Education to non-General Education?	Choose an item.
Change course to a Writing Intensive course?	Choose an item.
Change course from Writing Intensive to non-Writing intensive?	Choose an item.
Change course to repeatable?  (A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3 credit hour course can be repeated 1 time and a student can earn a maximum of 6 credits). *Not the same as Multiple Attempts or Grade Forgiveness	Choose an item.  If repeatable, list maximum number of credits

**Impact of Change of Course Proposal**

<b>Will this change of course proposal impact other courses, programs, departments, or budgets?</b>	Yes
<b>If the answer to the question above is "yes", list the impact on other courses, programs, or budgets?</b>	One topic, solutions, will move from CHM 2045 to CHM 2046.
<b>Have you discussed this proposal with anyone (from other departments, programs, or institutions) regarding the impact? Were any agreements made? Provide detail information below.</b>	
Agreement of chemistry faculty (continuing and annual contract) through e-mail and during a meeting on Aug. 15, 2017 at the Lee campus.	

**Section III, Justification for proposal**

<b>Provide justification (below) for each change on this proposed curriculum action.</b>
To achieve more even distribution of the amount of material covered in CHM 245 and CHM 2046.

**Section IV, Important Dates and Endorsements Required**

<b>List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).</b>
Qin Liu, Lisa McGarity, Kim Turner, Di Xue, Rebecca Page

**NOTE:** Course and Program changes must be submitted by the dates listed on the published Curriculum Committee Calendar. Exceptions to the published submission deadlines must receive prior approval from the Provost's Office.

<b>Term in which approved action will take place</b>	Fall 2018
<b>Provide an explanation below for the requested exception to the effective date.</b>	

<b>Any exceptions to the term start date requires the signatures of the Academic Dean or Associate Vice President and the Provost prior to submission to the Dropbox.</b>		
<b>Dean or Associate Vice President</b>	<b>Signature</b>	<b>Date</b>
<b>Provost</b>	<b>Signature</b>	<b>Date</b>

Dr. Jeff Stewart

Required Endorsements	Type in Name	Select Date
Department Chair or Program Coordinator/Director	Peggy Romeo <i>Peggy Romeo</i>	Click here to enter a date. 9/6/17
Academic Dean or Associate Vice President	Martin McClinton <i>Martin McClinton</i>	Click here to enter a date. 9/6/17

All Curriculum proposals require approval of the Curriculum Committee and the Provost. Final approval or denial of a proposal is reflected on the completed and signed proposal.

Approve      Do not approve

*Mary E. Myers*  
Curriculum Committee Chair Signature

10/9/17  
Date

Approve      Do not approve

*Jeff Stewart*  
Provost Signature

10/16/17  
Date