Curriculum Committee

FLORIDA SOUTHWESTERN STATE COLLEGE

Change of Course Proposal

School or Division	School of Pure and Applied Sciences
Program or Certificate	
Proposed by (faculty only)	L. McGarity, Q. Liu, K. Hilton, D. Xue, S. Pasishnyk, R. Page.
Presenter (faculty only)	Dr. 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	10/10/2018
Current course prefix, number, and title	CHM 2045 General Chemistry I

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

☒ Approve ☐ Do Not Approve

Mary C. Myers — *Curriculum Committee Chair Signature*

2/6/19 — *Date*

☑ Approve ☐ Do Not Approve

[signature] — *Vice Provost for Academic Affairs Signature*

2-8-19 — *Date*

All Curriculum proposals require review by the Office of Accountability & Effectiveness.

☑ Reviewed

Barbara D. Miley — *Office of Accountability & Effectiveness Signature*

2-12-19 — *Date*

Section I, Important Dates and Endorsements Required

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 Vice Provost for Academic Affairs' Office.

Term in which approved action will take place	Fall 2019
Provide an explanation below for the requested exception to the effective **date.**	

Any exceptions to the term start date requires the signatures of the Academic Dean and Vice Provost for Academic Affairs prior to submission to the Dropbox.		
Dean	**Signature**	**Date**
Vice Provost for Academic Affairs	**Signature**	**Date**
Dr. Eileen DeLuca		

Required Endorsements	**Type in Name**	**Select Date**
Department Chair or Program Coordinator/Director	Dr. Peggy Romeo	11/2/2018
Academic Dean or Vice Provost for Academic Affairs	Dr. Martin McClinton	11/2/2018

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

Section II, Proposed Changes

Change to course prefix and number Lecture/lab course combined must include "C" / lab course must include "L"	MAT1033 with a C or better AND (one credit of High School Chemistry or CHM2025, 1020C or 2032) with a C or better)
Do any of the changes affect the AA focus? (If so, a Change of Program proposal is also needed.)	No
Provide justification for the proposed prerequisite(s).	General Chemistry's curriculum has many mathematical formulas that need to be manipulated and solved; basic knowledge of chemistry essential for success.
Change to course title	
Does the Course Title Change affect other courses? (Ex: If Guitar I becomes Intro to Guitar, should Guitar II become Guitar I?)	
Change of School, Division, or Department	
Change to course prerequisite(s) and minimum grade(s) (must include minimum grade if higher than a "D")	
Change to course co-requisites	
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)	
Change to course credits or clock hours	
Change to contact hours (faculty load)	
Are the Contact hours different from the credit/lecture/lab hours?	
Change to grade mode	
Change to credit type	
Change to course description (provide below)	

Change to general topic outline (type in entire new outline below)
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Change to Learning Outcomes: For information purposes only.

IV. Course Competencies, Learning Outcomes and Objectives

A. General Education Competencies and Course Outcomes

General Education Competency: **Evaluate**

1. Course Outcomes or Objectives Supporting the General Education Competency Selected:
   - Classify and balance chemical reactions and perform calculations based on chemical compounds and their reactions.
   - Explain how the Bohr model of the atom relates to the modern description by quantum theory, and using terms of the quantum theory, relate atoms to the Periodic Table.
   - Predict molecular shapes and other molecular properties utilizing the VSEPR method.
   - Calculate changes in properties of gases, including reactions involving gases.
   - Describe intermolecular attractive forces, explain their effect on selected physical properties of solids, liquids, and gases, and interpret phase diagrams.
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 ....

- Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.
- Students will successfully recognize and comprehend fundamental concepts, principles and processes about the natural world

C. Other Course Objectives/Standards

1. Students will classify matter as an element, compound, heterogeneous mixture, or homogeneous mixture.
2. Students will perform calculations using the Metric System.
3. Students will identify properties and changes in matter as physical or chemical.
4. Students will use descriptive terms to characterize energy.
5. Students will identify different models of the atom.
6. Students will use modern atomic theory to identify the number of protons, neutrons, and electrons in an atom.
7. Students will name molecular and ionic compounds, and represent compounds using chemical formulas.
8. Students will write and balance the chemical reactions
9. Students will perform stoichiometric reaction calculations.
10. Students will perform calculations by employing gas laws.
11. Students will calculate internal energy change by determining heat and work changes in the system and the surroundings.
12. Students will determine reaction enthalpies using standard enthalpy data.
13. Students will determine wavelength and frequency of hydrogen spectral lines.
14. Students will write electron configurations for atoms.
15. Students will identify shapes of atomic orbitals.
16. Students will identify trends in the Periodic Table utilizing Periodic Law.

17. Students will predict molecular geometry and polarity using VSEPR and Valence Bond Theory. 18. Students will determine the intermolecular forces involved in substances.

Section III (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.	No change
Change course to an "International or Diversity Focus" course?	No, not International or Diversity Focus
Change course to a General Education course?	No
Change course from General Education to non-General Education?	No
Change course to a Writing Intensive course?	No
Change course from Writing Intensive to non-Writing intensive?	No
Change course to repeatable?	No

Impact of Change of Course Proposal	
Will this change of course proposal impact other courses, programs, departments, or budgets?	No
If the answer to the question above is "yes", list the impact on other courses, programs, or budgets?	
Have you discussed this proposal with anyone (from other departments, programs, or institutions) regarding the impact? Were any agreements made? Provide detail information below.	
Agreement of chemistry faculty (continuing and annual contract) through e-mail and department meetings Aug. 2018 – Oct. 2018.	

Impact of Change of Course Proposal	
Will this change of course proposal impact library services or budgets?	No
If the answer to the question above is "yes", list the impact on other courses, programs, or budgets?	
Have you discussed this proposal with anyone (from other departments, programs, or institutions) regarding the impact? Were any agreements made? Provide detail information below.	
No	

Section IV, Justification for proposal

Provide justification (below) for each change on this proposed curriculum action.

To clarify General Chemistry I Learning Objectives and to modify Prerequisite to help reduce excess credits and ensure students have the math skills needed

Revised: 11/11, 6/12, 6/13, 7/14, 8/15, 8/16, 8/17, 3/18, 5/18, 6/18