University of Wisconsin-Whitewater

Curriculum Proposal Form #4R

# **Change in or Deletion of an Existing Course**

Type of Action (check all that apply)

Pre-requisite Change

Add Cross-listing \*  Technological Literacy

Course Deletion  Title Change   
 Number Change  Writing Requirement

(other)

**Effective Term**:

**Current Course Number** (*subject area and 3-digit course number)*: Chemistry 456   
**Cross-listing *(if applicable)***: Biology 456

**New Course Number** (*subject area and 3-digit course number*): **Chemistry 456**

**Cross-listing *(if applicable)***: **Biology 456**

**\*If adding a cross-listing, include the following:**

Required in the major:   
  
Required in the minor:

Number of credits: Lab hours/week:    
  
Contact hours/week: Repeatable

**Current Course Title**: Biochemistry

**New Course Title**: **Biochemistry of Metabolism and Signaling**

**25-Character Abbreviation** *(if new title)*: Metabolism and signaling

**Sponsor(s)**: Christopher Veldkamp and Catherine Chan

**Department(s):** Biological Sciences and Chemistry

**College(s):**

**List all programs that are affected by this change:**

Chemistry

Biological Sciences

If programs are listed above, will this change affect the Catalog and Advising Reports for those programs? If so, have Form 2's been submitted for each of those programs?

(Form 2 is necessary to provide updates to the Catalog and Advising Reports)

NA  Yes  They will be submitted in the future

Proposal Information: ([***Procedures for form #4R***](http://acadaff.uww.edu/UCC/Curriculum_Handbook_09/Procedures_form4R.docx))

1. **Detailed explanation of changes** (use FROM/TO format)

***FROM:***

An introduction to the chemistry of biological systems. The chemistry of the major compounds of living organisms, e.g., proteins, carbohydrates, lipids and nucleic acids, are studied. Intermediary metabolism and biological control are emphasized. The course meets for 3 lectures and 1 laboratory session a week.

Prereq: 'C' or better in Biol 120 or Biol 141 (or pass a higher level Biology course) and Chem 252.

***TO:***

**The chemistry of biological systems,** **focusing on** **metabolism and biochemical signaling. Three lectures/week. For Chemistry majors (Biochemistry emphasis), Biology majors (allied health focus), and students interested in Biochemistry postgraduate education.**

**Prereq: 'C' or better in Biol 120 or Biol 141 (or equivalent) or instructor consent, both Biol 251 and Biol 253 or Chem 454, and Chem 251.**

## Justification for action

The Chemistry department is changing its curricular to meet new guidelines issued by the American Chemical Society (ACS). Specifically, we propose to expand the current one semester Biochemistry course (Biol/Chem 456) to two separate courses, Biochemistry of Macromolecules and Biochemistry of Metabolism and Signaling. The Biochemistry of Macromolecules course, Chem 454, explores fundamental biochemistry concepts, and is a required course for all Chemistry majors (pending approval by the College and University Curricular Committees). We propose to re-design Biol/Chem 456 to focus on the biochemistry of metabolism and signaling, and is intended for Chemistry majors with a Biochemistry emphasis, students interested in postgraduate education in Biochemistry (and related fields), and Biology majors with a pre-professional or allied health field focus. The laboratory component of the original Biol/Chem 456 is now proposed as a stand-alone laboratory course (Biol/Chem 458) to enable students to have maximum scheduling flexibility.