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) Description Change

**Effective Term**:

**Current Course Number** (*subject area and 3-digit course number)*: CHEM 370   
**Cross-listing *(if applicable)***:

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

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

**\*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**: Physical Chemistry

**New Course Title**:

**25-Character Abbreviation** *(if new title)*:

**Sponsor(s)**: Paul House

**Department(s):** Chemistry

**College(s):**

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

No other programs affected by this change

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:***

CHEM 370 PHYSICAL CHEMISTRY 3 u

The general principles governing the behavior of matter are investigated.

Topics include the laws of thermodynamics, gases, phase diagrams, chemical

equilibrium, electrochemistry, kinetics, bonding theories, atomic structure

and quantum mechanics, spectroscopy and topics in solid state chemistry.

Three hours of lecture weekly. (Fall only)

Prereq: CHEM 352. Coreq: MATH 255 and PHYSCS 174.

***TO:***

CHEM 370 PHYSICAL CHEMISTRY 3 u

The general principles governing the behavior of matter are investigated.

Topics include atomic structure and quantum mechanics, spectroscopy and

topics in solid state chemistry.

Three hours of lecture weekly. (Fall only)

Prereq: CHEM 352. Coreq: **MATH 254 and PHYSCS 181 or PHYSCS 141.**

## Justification for action

The change in corequisites reflects proposed changes in three of the chemistry majors that reduce the math requirement to go through MATH 254 instead of MATH 255 and changes in the physic requirements to either calculus based PHYSCS 180/181 or non-calculus based PHYSCS 140/141. The proposed changes are in line with suggestions from the American Chemical Society, a national professional organization. The material will be taught in a way that takes into account the change in math and physics preparation that students will have.

The description change reflects the way this course is taught and more precisely describes the topics covered. The original description for CHEM 370 actually described the content of both CHEM 370 and CHEM 371. The new descriptions are more precise. Material covered in the two courses hasn't changed.