11-14-2006

Chemistry Multiple Course Revisions Form 11/14/2006

Curriculum Committee

UNIVERSITY OF MINNESOTA, MORRIS

Multiple Course Revisions

Route this form to:	UMM Multiple Course Revisions
UMM Dean's Office 315 Behmler Hall	Rev: 07/2004

USE FOR CATALOG YEAR CHANGES ONLY

This form is for presenting changes to Curriculum Committee; the information will still need to be entered in ECAS. Sending this form to Curriculum Committee for Approval means Department and Discipline approval has been received.

Date:
Discipline: Chemistry
Curriculum Committee Approval Date:

Course Revision #1

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 1101 - General Chemistry I (SCI-L)
(4.0 cr; Prereq-Math 0901 or placement beyond Math 0901 using ACT/placement exam score; fall, every year)
Scientific method, measurements, nomenclature, stoichiometry, atomic and molecular structure, thermochemistry, chemical periodicity, introduction to chemical bonding, and properties of common elements and ions. Development of scientific reasoning and problem-solving skills. Laboratory exercises concomitant with these topics. (3 hrs lect, 3 hrs lab)

Rationale (see instructions):
Additions reflect current course content

Course Revision #2

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 1102 - General Chemistry II (SCI-L)
(4.0 cr; Prereq-1101; spring, every year)
Continuation of Chem 1101. Chemical bonding, states of matter, solutions, acid-base chemistry, chemical equilibrium, oxidation-reduction reactions, kinetics, thermodynamics, quantum theory, nuclear chemistry, organic chemistry, and biochemistry. Lab exercises concomitant with these topics. (3 hrs lect ~~and rec~~, 3 hrs lab)

Rationale (see instructions):
Change indicates current course content

Course Revision #3

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 2312 - Organic Chemistry Lab II
(1.0 cr; Prereq-2311, coreq 2302 or #; spring, every year)
~~Experiments~~ Laboratory work in organic ~~chemistry; synthesis and experimental design~~ synthesis, experimental design, and spectroscopic analysis with an emphasis on reactions of biological interest~~; spectral analysis~~. (3 hrs lab)

Rationale (see instructions):
Course has a more biological emphasis

Course Revision #4

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 3111 - Instrumental Analysis (SCI-L)

(4.0 cr; Prereq-3101; ~~fall~~, spring, ~~odd~~ even years)

Principles of chemical instrumentation and instrumental methods of analysis; extensive lab work using chromatographic, spectrophotometric, and electro-chemical methods of analysis. (2 hrs lect, 4 hrs lab)

Rationale (see instructions):

Change reflects current offering

Course Revision #5

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 3701 - Inorganic Chemistry (SCI)

(3.0 cr; Prereq-3501 or #; ~~fall~~, spring)

The periodic table; models of structure and bonding of main group elements and transition metals, nomenclature, symmetry, and bonding theory of coordination compounds. (3 hrs lect)

Rationale (see instructions):

Change reflects current offering

Course Revision #6

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 3711 - Inorganic Chemistry Lab

(1.0 cr; coreq 3701 or #; spring, even years)

Lab experiments in inorganic/~~organometalic~~ organometallic chemistry illustrating synthetic and spectroscopic techniques. (3 hrs lect)

Rationale (see instructions):

Change reflects current offering and corrects typo

Course Revision #7

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 4352 - Synthesis (SCI)

(3.0 cr; Prereq-2302; ~~spring~~ fall, ~~even~~ odd years)

Study of the preparation of biologically active molecules, emphasizing the application of transition metal chemistry to modern synthetic methods. (3 hrs lect)

Rationale (see instructions):

Change reflects current offering

Course Revision #8

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 4353 - Synthesis Laboratory

(1.0 cr; Prereq-4352 or #~~; summer~~ offered when feasible)

Modern organometallic synthetic methods applied to the preparation of small organic molecules. Preparation, purification, analysis, and identification of synthetic products. Scientific record-keeping and literature searching. (3 hrs lab)

Rationale (see instructions):

Change reflects current offering

Course Revision #9

Give *complete* UMM catalog entry (deletions in strikethru font, additions underlined)(see instructions)

CHEM 4552 - Molecular Spectroscopy (SCI)

(3.0 cr; Prereq-2311, 3101 or #; spring, ~~even~~ odd years)

Interaction of molecules and electromagnetic radiation. Spectroscopic determination of molecular structure. Operation of spectrometers and spectrophotometers. (3 hrs lect)

Rationale (see instructions):

Change reflects current offering