March 21, 2018

Memo To: UMM Steering Committee

From: Janet Ericksen, Chair, Curriculum Committee

Subject: UMM Curriculum Course Change Proposals, Spring 2018

Below are items approved by the Curriculum Committee, which we request be placed on the agenda for the April 3, 2018 meeting of the Campus Assembly.

All Curriculum Committee Change Proposals for this year and past years can be found at www.morris.umn.edu/committees/Curriculum/.

A summary of votes cast by Curriculum Committee members is presented below:

### Division of Science and Mathematics Proposals:

<table>
<thead>
<tr>
<th>Course Action</th>
<th>Meeting Date</th>
<th>Vote (For-Against-Abstentions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry (Chem)</td>
<td></td>
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<tr>
<td>Course Revision: Chem 3801 – History of Chemistry</td>
<td>Mar. 19</td>
<td>(9-0-0)</td>
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<tr>
<td>Course Revision: Chem 4351 – Bioorganic Chemistry</td>
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| Geology (Geol)                       |              |                                 |
| Course Revision: Geol 3601 – Introduction to Geochemistry | Mar. 19      | (9-0-0)                          |

JSE/dkp
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 Discipline and Division approval has been received.

Date: 3/2/18  
Disciplines: Chemistry and Geology  
Curriculum Committee Approval Date: 3/19/18

**Course Revision #1 CHEMISTRY 3801**

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

Course change from inactive to active and from 4 credits to 2 credits


Rationale for change: Re-activation of inactive class due to new faculty with expertise/interest to teach it. Change from 4 credit to 2 credit, half-semester course to provide students with greater flexibility in scheduling. Supports additional breadth in rotated electives. (Rotation of electives means no resource concerns.) Description updated to reflect content for 2 credits and faculty expertise.

**Course Revision #2 CHEMISTRY 4351**

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

Course change from 4 credits to 2 credits

CHEM 4351. Bioorganic Chemistry. (4 cr; prereq 2302 or 2304, Biol 4211; spring, every year) Discussion of the theory of enzyme catalysis and catalytic antibodies, experimental determination of catalytic mechanisms for a variety of organic reactions in biological systems, and elucidation of biosynthetic pathways. Involves extensive reading in the primary literature.  
(2 cr; prereq: 2302 or 2304, Biol 4211; periodic spring) Discussion of the theory of enzyme catalysis, determination of catalytic mechanisms for a variety of organic reactions in biological systems, and elucidation of biosynthetic pathways. Involves analysis of the primary literature.

Rationale for change: Course is being dropped to two credits to provide more breadth of topics covered while being less in-depth compared to the prior credit load. Will be paired with new biochemistry 2 credit elective covering a related topic.
Course Revision #3 GEOLOGY 3601

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

Change course prereq

GEOL 3601. Introduction to Geochemistry. (4 cr; 1101 or Chem 1101 prereq (or co-req) 2101 or Chem 1102 or instr consent; periodic fall)
Applying chemistry to geologic problems such as weathering, sedimentary processes and diagenesis, formation of evaporites and ore deposits, magma genesis and magmatic differentiation; thermodynamic functions and the Phase Rule; oxidation potential and Eh-pH diagrams; isotopic geochemistry and geochronology. (three 65-min lect)

Rationale for change: The co-requisites/prerequisites were adjusted after consultation with Chemistry Discipline faculty regarding the intended course structure and content. These changes more accurately account necessary coursework to improve chances of student success and to encourage the enrollment by a broader range of students, beyond the Geology Discipline.