Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments •
Oceanography

1. This request is submitted by the Department of 
2. Course prefix, number and complete title of course: OCNG 641 Marine Chemistry
3. Change requested
   a. Prerequisite(s): From: OCNG 640 &/or GEOL 640 To: approval of instructor
   b. Withdrawal (reason):
   c. Cross-list with: Cross-listed courses require the signature of both department heads.

4. Change in course title and description. Enter complete current course title and current course description in item 4; enter proposed course title and proposed course description in item 5.
   a. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 6. Attach a course syllabus.
   b. Proposed course title and proposed course description:
   Marine Chemistry (3-0) Credit 3. The physical/inorganic chemical properties of seawater and its interactions with marine minerals; major topics: chemochemical properties of seawater, equilibrium and kinetics processes controlling ion speciation; geochemical processes at mineral surfaces, kinetics of mineral-seawater interactions, applications to modeling early diagenesis.

5. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   OCNG 641 INORGANIC AQUATIC GEOCHEMISTRY
   Chemical composition and properties of waters in the near Earth surface environment and their interactions with sedimentary minerals; major topics: thermochemical properties of natural waters, equilibrium and kinetic controlling ion speciation; geochemical processes at mineral surfaces; kinetics of mineral-water interactions; applications to modeling early diagenesis. Prerequisites: physical chemistry or quantitative geochemistry or approval of instructor.

6. a. As currently in course inventory:
   b. Change to:
   Course #
   Title (excluding punctuation):

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>CIP</th>
<th>Fund Code</th>
<th>Admin Unit</th>
<th>Prereq</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>OCNG</td>
<td>641</td>
<td>MARINE CHEMISTRY</td>
<td>0300</td>
<td>3</td>
<td>0</td>
<td>3632</td>
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</tbody>
</table>

Approved recommended by: P. Chapman

Department Head - Type Name & Sign Date
Chair, College Review Committee Date
Dean of College Date

Associate Director, Curricular Services Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8801 or sandra-williams@tamu.edu
Curricular Services - 12908
OCNG 641
Inorganic Aquatic Geochemistry

Instructor: Dr. John W. Morse, Scherck Professor of Oceanography
Office: O&M Building Room 508
Office hours: TBA by Appointment
Phone: 845-9630
e-mail: morse@ocean.tamu.edu

Meeting time & place: TBA

Grading: 3 open book in class tests @ 20% each; homework and class participation 15%; research proposal 25%. The grading scale is 90-100% = A, 80-89% = B, 70-79% = C, 60-69 = D, 59 and below = F

Supporting material: There will be no text book. Journal and other reading assignments will be made available generally as electronic PDFs.

General comments: You will all find this course an intellectual challenge! It is a largely quantitative rather than descriptive approach to inorganic aquatic geochemistry. The basic objectives are not only to further your knowledge of aquatic geochemistry, but also to teach you how to apply basic chemical concepts to real world problems. It is important that you feel free to come in and visit with me as even in this small class you have rather dissimilar educational backgrounds and I may need to give you additional information or reading material if some of the topics are not readily understandable.

Note: During Review students will be called on to lead in problem solving or present other material in class e.g. discuss reading assignments. Details of the proposal preparation and presentation will be provided later.

ADA Policy Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall, or call 845-1637.

Copyright Notice: The handouts and graphics used in this course are copyrighted. By
handouts I mean all printed and electronic material generated for this class. This includes but is not limited to syllabi, quizzes, exams, review sheets, PowerPoint presentations and additional electronic class notes. Since these items are copyrighted, you do not have the right to copy them unless I expressly grant permission to do so. You may print out PowerPoint files and electronic class notes for your own use.

Plagiarism Statement: As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, http://student-rules.tamu.edu, under the section “Scholastic Dishonesty.”

In this class “collaboration” on homework assignments, unless specified otherwise, will be considered plagiarism. If you have difficulties, see the instructor not your fellow students or others. You will have a chance to “collaborate” during class when solutions are presented by students.

Know the Code: Aggie Code of Honor: "Aggies do not lie, cheat, or steal, nor do they tolerate those who do." Instances of scholastic dishonesty will be treated in accordance with Section 20 of the TAMU Student Rules. Please inform yourself on the student rules regarding cheating, plagiarism, fabrication of information, conspiracy at the new website: *www.tamu.edu/aggiehonor/* <http://www.tamu.edu/aggiehonor/>*. 
# Tentative Class Topic Schedule

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/15</td>
<td>Introduction &amp; Basics</td>
<td>15</td>
<td>3/4</td>
<td>Review</td>
</tr>
<tr>
<td>2</td>
<td>1/17</td>
<td>General Thermodynamics</td>
<td>16</td>
<td>3/6</td>
<td>Test</td>
</tr>
<tr>
<td>3</td>
<td>1/22</td>
<td>Water &amp; Seawater Thermo</td>
<td>17</td>
<td>3/18</td>
<td>Solid Phase Phys Chem</td>
</tr>
<tr>
<td>4</td>
<td>1/24</td>
<td>Activity Coefficients</td>
<td>18</td>
<td>3/20</td>
<td>Solubility &amp; Solid Soln</td>
</tr>
<tr>
<td>5</td>
<td>1/29</td>
<td>Speciation &amp; Metal Complexes</td>
<td>19</td>
<td>3/25</td>
<td>Reaction Kinetics</td>
</tr>
<tr>
<td>6</td>
<td>1/31</td>
<td>Gas Solubility &amp; Exchange</td>
<td>20</td>
<td>3/27</td>
<td>Carbonate Systems</td>
</tr>
<tr>
<td>7</td>
<td>2/5</td>
<td>Review*</td>
<td>21</td>
<td>4/1</td>
<td>Silica &amp; Clays</td>
</tr>
<tr>
<td>8</td>
<td>2/7</td>
<td>Test</td>
<td>22</td>
<td>4/3</td>
<td>Oxides &amp; Sulfides</td>
</tr>
<tr>
<td>9</td>
<td>2/12</td>
<td>Acid –Base Chemistry</td>
<td>23</td>
<td>4/8</td>
<td>Sediment Diagenesis</td>
</tr>
<tr>
<td>10</td>
<td>2/14</td>
<td>Carbonic Acid System</td>
<td>24</td>
<td>4/10</td>
<td>Review</td>
</tr>
<tr>
<td>11</td>
<td>2/19</td>
<td>Carbonic Acid System</td>
<td>25</td>
<td>4/15</td>
<td>Test</td>
</tr>
<tr>
<td>12</td>
<td>2/21</td>
<td>Redox Reactions</td>
<td>26</td>
<td>4/17</td>
<td>Proposal Presentation</td>
</tr>
<tr>
<td>13</td>
<td>2/26</td>
<td>Redox Reactions</td>
<td>27</td>
<td>4/22</td>
<td>Proposal Presentation</td>
</tr>
<tr>
<td>14</td>
<td>2/28</td>
<td>S Biogeochemistry</td>
<td>28</td>
<td>4/24</td>
<td>Proposal Presentation</td>
</tr>
</tbody>
</table>

*Review will largely consist of working practice problems in class*