Texas A&M University
Departmental Request for a Change in Course
Undergraduate ♦ Graduate ♦ Professional
Submit original form and attachments.
Oceanography
OCNG 652 Sedimentary Biogeochemistry

Attach a brief supporting statement for changes made to items 3a thru 3d, and 5 below.
3. Change requested
   a) Prerequisite(s): From ____________________________ To ____________________________
   b) Withdrawal (reason) ____________________________
   c) Cross-list with ____________________________
      Cross-listed courses require the signature of both department heads.
   d) Change in course title and description. Enter complete current course title and current course description; complete proposed course title and proposed course description in items 4 and 5.
   e) Change in credit/contact hours. Complete item 6b. Underscore change(s). Attach a course syllabus.

   Focus on benthic processes occurring near the sediment-water interface of marine sediments; interdisciplinary approach in examining the complex interrelationships among organisms, pore waters and sedimentary minerals in different marine environments; laboratory methods taught and applied to field case studies in different marine environments.

5. Complete proposed course title and proposed course description (not to exceed 50 words):
   OCNG 652 Sedimentary Biogeochemistry. An interdisciplinary approach to understanding complex processes that occur near the marine sediment-water interface in marine and estuarine environments. Composition of marine sediments, pore water chemistry, role of organisms in chemical transformations and pelagic-benthic coupling of carbon, nitrogen and sulfur cycling in sediments. Modeling biogeochemical processes at the sediment-water interface and during early burial diagenesis.

6. a) As currently in course inventory:
   Prefix | Course # | Title (excluding punctuation) | Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | FICE Code | Level
   OCNG 652 | Sedimentary Biogeochemistry |
   03 | 02 | 04 | 40 | 06 | 07 | 00 | 02 | OCNG | 0 | 0 | 3 | 6 | 3 | 2 | Level | 6

   b) Change to:
   Prefix | Course # | Title (excluding punctuation) | Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | FICE Code | Level
   OCNG 652 | Sedimentary Biogeochemistry |
   03 | 00 | 03 | 40 | 06 | 07 | 00 | 02 | OCNG | 08 | 09 | 0 | 0 | 3 | 6 | 3 | 2 | Level | 6

Approval recommended by:

Head of Department
Date

Chair, College Review Committee
Date

Dean of College
Date

Submitted to Coordinating Board by:

Director of Academic Support Services
Date

Questions regarding this form should be directed to Sandra Williams at 845-8836.
OAR/AS – 04/07

1 of 4 C22
Sedimentary Biogeochemistry
OCNG 652 Sedimentary Biogeochemistry (student credit hours: 3)

Class times:
TBA

Instructors:
Dr. Dan Thornton and Dr. John Morse

Dan Thornton’s information
Lab and office: 521 & 518BA, Eller O & M Building
Office hours: TBA (or by appointment).

You are welcome to stop by outside of office hours and I will see you if I can; however, if you come outside of office hours or without an appointment I may not be in the office or I may not have time to see you. You can also contact me by phone or email:

Office phone: 979-845-4092
Email: dthornton@ocean.tamu.edu
http://oceanography.tamu.edu/Directory/Faculty/Bio/DanThornton.html

Communication: You must have a NEO / Webmail account and know how to access your email and WebCT. I will send out important notices concerning the course by email or post them as announcements on WebCT. Reading materials and copies of lecture notes will be posted on WebCT as pdf files.

John Morse’s Information
Office: 502a, Eller O & M Building
Office hours: After class or by appointment

Office phone: 979-845-9630
Email: morse@ocean.tamu.edu
http://ocean.tamu.edu/Directory/Faculty/Chem/morse.html

Brief course synopsis:
An interdisciplinary approach to understanding complex processes that occur near the sediment-water interface in marine and estuarine environments. Composition of marine sediments, pore water chemistry, role of organisms in chemical transformations and benthic-pelagic coupling. Carbon, nitrogen and sulfur cycling in sediments. Modeling biogeochemical processes at the sediment-water interface and during early burial diagenesis.
**Text:**
There is no single text book for this course. We will give you reading lists and refer to several books as the course progresses. We will also refer to and expect you to use the primary literature (i.e. papers in journals). Relevant journals include: *Limnology and Oceanography; Marine Chemistry; Marine Ecology Progress Series; Applied and Environmental Microbiology; Geochimica et Cosmochimica Acta; Science; Nature.*

**Assessment:**
Mid term exam 20 %; Presentation 20 %; Research proposal 30 %; Final exam 30 %

**Attendance:**
We expect you to attend class and hand in your work on time. For rules and regulations regarding class attendance, behavior, missed classes, exams, homework, and others, please consult the 2007-2008 TAMU Regulations Handbook at http://studentrules.tamu.edu

**Plagiarism and academic dishonesty**
The Aggie code of honor: *"An Aggie does not lie, cheat, or steal, or tolerate those who do."* http://www.tamu.edu/aggiehonor/

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.”

**Copyright Notice:**
The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

**Americans with Disabilities Act (ADA)**
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.
**Class schedule**
Any changes to the schedule will be notified you in class, by email or WebCT as soon as possible.

<table>
<thead>
<tr>
<th>Week 1:</th>
<th>Introduction &amp; geology (JM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2:</td>
<td>Inorganic chemistry (JM)</td>
</tr>
<tr>
<td>Week 3:</td>
<td>Inorganic chemistry (JM)</td>
</tr>
<tr>
<td>Week 4:</td>
<td>Introduction to benthic ecology (DT)</td>
</tr>
<tr>
<td>Week 5:</td>
<td>Benthic ecology / microbiology (DT)</td>
</tr>
<tr>
<td>Week 6:</td>
<td>Benthic microbiology (N-cycling) (DT)</td>
</tr>
<tr>
<td>Week 7:</td>
<td>Mid-term exam</td>
</tr>
<tr>
<td></td>
<td>Benthic microbiology (DT)</td>
</tr>
<tr>
<td>Week 8:</td>
<td>Benthic microbiology (DT)</td>
</tr>
<tr>
<td>Week 9:</td>
<td>Bioturbation / bioirrigation (DT)</td>
</tr>
<tr>
<td>Week 10:</td>
<td>Organic chemistry / diagenesis (JM)</td>
</tr>
<tr>
<td>Week 11:</td>
<td>Diagenesis (JM)</td>
</tr>
<tr>
<td>Week 12:</td>
<td>Diagenetic models (JM)</td>
</tr>
<tr>
<td>Week 13:</td>
<td>Isotopes (JM)</td>
</tr>
<tr>
<td>Week 14:</td>
<td>Photosynthetic biofilms (DT)</td>
</tr>
<tr>
<td>Week 15:</td>
<td>Permeable sediments (DT)/Final Exam</td>
</tr>
</tbody>
</table>