

## Cover Sheet: Request 9732

### GLY 3XXX Geochemical Oceanography

#### Info

Process	Course New Ugrad/Pro
Status	Pending
Submitter	Dutton,Andrea adutton@ufl.edu
Created	11/5/2014 3:12:44 PM
Updated	2/26/2015 10:22:47 AM
Description	Focuses on chemical properties and processes in the oceans, exploring the links between chemistry, biology, geology, and global change within a marine context. Topics include: elemental composition and speciation, biogeochemical cycles, chemical and isotopic tracers, chemistry of marine sediments, and oceanic uptake of anthropogenic carbon.

#### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Geological Sciences 011610000	Foster, David A		1/29/2015
College	Approved	CLAS - College of Liberal Arts and Sciences	Pharies, David A		2/26/2015
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			2/26/2015
Statewide Course Numbering System					
Office of the Registrar					
Student Academic Support System					
Catalog					
College Notified					

## Recommended SCNS Course Identification

1. Prefix GLY      2. Level 3      3. Number XXX      4. Lab Code None

5. Course Title Geochemical Oceanography

6. Transcript Title (21 character maximum) Geochemical Oceanog

7. Effective Term Fall

8. Effective Year 2015

9. Rotating Topic? No

10. Amount of Credit 3

11. If variable, # minimum and # maximum credits per semester.

12. Repeatable credit? No

13. If yes, total repeatable credit allowed #

14. S/U Only? No

15. Contact Type Regularly Scheduled [base hr]

16. Degree Type Baccalaureate

17. If other, please specify: [Click here to enter text.](#)

18. Category of Instruction Intermediate

## 19. Course Description (50 words maximum)

Focuses on chemical properties and processes in the oceans, exploring the links between chemistry, biology, geology, and global change within a marine context. Topics include: elemental composition and speciation, biogeochemical cycles, chemical and isotopic tracers, chemistry of marine sediments, and oceanic uptake of anthropogenic carbon.

## 20. Prerequisites

CHM 2045 and (OCE 1001 or GLY 2010C or GLY 2030C)

## 21. Co-requisites

[Click here to enter text.](#)

## 22. Rationale and Placement in Curriculum

This course will be a requirement of CLAS students in the Marine Science IDS major at UF. It also fills a gap in the geology curriculum that will also benefit undergraduate students majoring in the Department of Geological Sciences. Understanding changes in marine chemistry, particularly in the context of global change, is essential for those seeking employment opportunities in marine and coastal sciences.

23. Complete the syllabus checklist on the next page of this form.

### Syllabus Requirements Checklist

The University's complete Syllabus Policy can be found at:

[http://www.a.a.ufl.edu/Data/Sites/18/media/policies/syllabi\\_policy.pdf](http://www.a.a.ufl.edu/Data/Sites/18/media/policies/syllabi_policy.pdf)

The syllabus of the proposed course **must** include the following:

- ☒ Course title
- ☒ Instructor contact information (if applicable, TA information may be listed as TBA)
- ☒ Office hours during which students may meet with the instructor and TA (if applicable)
- ☒ Course objectives and/or goals
- ☒ A weekly course schedule of topics and assignments.
- ☒ Methods by which students will be evaluated and their grades determined
- ☒ Information on current UF grading policies for assigning grade points. This may be achieved by including a link to the appropriate undergraduate catalog web page:  
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.
- ☒ List of all required and recommended textbooks
- ☒ Materials and Supplies Fees, if any
- ☒ A statement related to class attendance, make-up exams and other work such as: *"Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>."*
- ☒ A statement related to accommodations for students with disabilities such as: *"Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation."*
- ☒ A statement informing students of the online course evaluation process such as: *"Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>."*

It is **recommended** that the syllabus contain the following:

- ☒ Critical dates for exams or other work
- ☒ Class demeanor expected by the professor (e.g. tardiness, cell phone usage)
- ☒ The university's honesty policy regarding cheating, plagiarism, etc.

*Suggested wording: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.*

- ☒ Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies

**GEOCHEMICAL OCEANOGRAPHY—GLY 3XXX**  
**[Semester, Year]**

**Instructor:** Andrea Dutton

Office: #220A Williamson Hall

Office phone: 392-3626

e-mail: [adutton@ufl.edu](mailto:adutton@ufl.edu)

**Lectures:** Time: **[List Days], [List Periods]** (time of day)

Place: Room number and Building name

**Office Hours:** [day and time] (or by appointment)

**Teaching Assistant:** [Name], Office: Room #, [bldg. name], [e-mail address]

Office Hours: [day and time]

**Course Description:**

Focuses on chemical properties and processes in the oceans, exploring the links between chemistry, biology, geology, and global change within a marine context. Topics include: elemental composition and speciation, biogeochemical cycles, chemical and isotopic tracers, chemistry of marine sediments, and oceanic uptake of anthropogenic carbon.

**Course Objectives:**

Students who successfully complete this course will be able to:

- understand the chemistry of the oceans, what controls it, how and when it changes, how this knowledge can be transferred to the study of past and future oceans.
- demonstrate proficiency in modeling, critical thinking, presentation through oral, visual and written formats.

**Materials: Required Textbook:**

*Chemical Oceanography and the Marine Carbon Cycle*, Emerson & Hedges, Cambridge University Press, 2008. Available at the UF bookstore (\$95 new or ~\$71 used) or on-line at [www.amazon.com](http://www.amazon.com) for ~\$82 as of Aug-25-2014.

**Course Fee:** \$1.50 to cover photocopying costs

**Course Website:**

On Canvas through the UF e-learning website; go to <http://lss.at.ufl.edu/> and click on the e-Learning button. The course site will have relevant announcements posted, downloadable materials as announced in class, etc. **You are responsible for checking this site for announcements and to see that your grades are being correctly recorded.** Do not send me e-mail through this site; use [adutton@ufl.edu](mailto:adutton@ufl.edu) instead.

**Attendance Policy**

Attendance and participation in all lectures and labs is expected. **Notify the instructor ASAP if you have a known schedule conflict.** If you miss a class due to illness, contact the instructor as soon as you are able to so to make arrangements for make-up work.

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

## Conduct in Class

- Please be courteous and do not talk or text during lecture. This can be distracting to other students and the instructor.
- Only approved electronic devices may be used in class. Approved electronic devices are laptop computers (when used to take notes or otherwise participate in classroom activities) and voice recording devices. Unapproved electronic devices include cell phones, video recorders, digital cameras and MP3 players.

## Grading:

There will be two exams during the semester in addition to a final exam based on the material covered in lectures. The final project due near the end of the term is a 5-page paper and scientific poster on the same topic. The poster will contain an abstract, background, data, conclusions and citations to convey the results of scientific research and will be orally presented and evaluated in class by a team of faculty judges from the department. Assignments constitute the remainder of your grade. The breakdown of your assessment is as follows:

Exams (3 total):	45% (15% each)
Poster & Paper Term Project:	20%
Assignments:	30%
Attendance & Participation:	5% (points will be deducted for repeated unexcused absences and/or failure to participate in class discussions and in-class activities)

## Grading Scale:

Point Range (%)	Letter Grade	GPA equivalent
≥ 93.00	A	4.0
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 – 86.9	B	3.0
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2.0
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1.0
60.0 – 62.9	D-	0.67
< 60.0	E	0

For more information on grades and grading policies, please visit:  
<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

**Exams:** Everything associated with the class, including lecture material, assigned readings and exercises is fair game on the exams. However, the focus will be on the material presented and discussed in class and in assignments. Make-ups for exams will only be given by pre-arrangement (before the exam) or under extraordinary circumstances as described in the attendance policy.

**Course Topics:** boxes are aligned with dates. Reading assignments for each topic will be drawn from the textbook or from supplemental pdfs posted on the course website.

	<b>2014 Week</b>	<b>Date</b>	
<b>1st Unit Theme: Composition of SW and Controlling Processes</b> <ul style="list-style-type: none"> <li>• Salinity</li> <li>• Constituents of Seawater</li> <li>• Role of Ocean Circulation &amp; biology</li> <li>• Weathering &amp; residence times</li> <li>• Reverse weathering &amp; hydrothermal circulation</li> <li>• Primary production</li> <li>• Export</li> </ul>	1	26-Aug 28-Aug	
	2	2-Sep 4-Sep	
	3	9-Sep 11-Sep	
	4	16-Sep 18-Sep	
	5	23-Sep 25-Sep	
<b>2nd Unit Theme: Isotope Geochemistry</b> <ul style="list-style-type: none"> <li>• Radiocarbon</li> <li>• Stable isotopes (O, C, H)</li> <li>• U-series</li> </ul>	6	30-Sep 2-Oct	<b>EXAM I</b>
	7	7-Oct 9-Oct	
	8	14-Oct 16-Oct	
<b>3rd Unit Theme: Marine Biogeochemical Cycles</b> <ul style="list-style-type: none"> <li>• Oxygen</li> <li>• Nitrogen</li> <li>• Silicon</li> <li>• Sediments &amp; diagenesis</li> <li>• Carbon (the carbonate system)</li> <li>• Equilibrium chemistry</li> <li>• Box Modeling</li> </ul>	9	21-Oct 23-Oct	
	10	28-Oct 30-Oct	
	11	4-Nov 6-Nov	
	12	11-Nov 13-Nov	No class
	13	18-Nov 20-Nov	
<b>4th Unit Theme: Redox Geochemistry</b> <ul style="list-style-type: none"> <li>• Redox Chemistry</li> <li>• Sediment Diagenesis</li> </ul>	14	25-Nov 27-Nov	<b>EXAM II</b> No class
	15	2-Dec	

4-Dec

16 9-Dec

16-Dec **FINAL EXAM**

### **UF Counseling Services**

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

Many students experience test anxiety and other stress related problems. "A Self Help Guide for Students" is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site: <http://www.counsel.ufl.edu/>.

### **Honesty Policy**

All students registered at the University of Florida have agreed to comply with the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

In addition, on all work submitted for credit the following pledge is either required or implied: "On my honor I have neither given nor received unauthorized aid in doing this assignment."

If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at:

<http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

### **Accommodation for Students with Disabilities**

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drp/services/>.

It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

### **Software Use**

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

**Instructor Evaluations**

You will receive an e-mail towards the end of the term to request the completion of an online instructor evaluation for this course. Instructors do not have the ability to know which students completed or did not complete their course evaluations. While not required, your participation in the evaluations is greatly appreciated. These evaluations are conducted online at <https://evaluations.ufl.edu> . Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.