Introduction to Experimental Marine Sciences

MARS 3900: Community Service Learning

updated 01/18/2010 **Spring 2010**

Course Description:

The purpose of this course is to introduce members of the local community to the basic principles of marine science through community service outreach programs. Class members working in small groups will design lessons for school aged students under the supervision of the MARS 3900 instructor(s) and in collaboration with local school and community program leaders. MARS 3900 students will present their lessons to groups of children in their schools and community centers.

Principle Course Objectives:

Students enrolled in MARS 3900 will apply their knowledge of marine biology and marine science to community service through educational outreach. Working in small groups, MARS 3900 students will improve their written and oral communication skills through practice teaching prior to classroom visits. MARS 3900 students will utilize instructional technology and computer software in the design and presentation of their educational units.

Instructors:

Dr. Catherine Teare Ketter
Room 110J, Marine Sciences Building
(706) 583-0862 (office); (404) 936-8453 (cell)
cmscatk@uga.edu
Office hours: Mondays 3:30-5:30 PM, other times by appointment

Course Administration:

All course material will be posted as PDF files on the course eLC page. We will use eLC to communicate among our groups using the discussion (bulletin board "chat" feature) page to organize our small groups. If the course does not appear on you're my web-ct, you need to let me know. I can add you to web-ct manually if I have the following information (name, student ID number, and your UGA myID). I will post files using PDF, PowerPoint, and EXCEL formats. You will need to download Adobe Acrobat Reader (if you do not already have this software) in order to view the PDF files. If your home computer does not support MS Office applications or Adobe Acrobat files, you should use a UGA computer lab to access course files. Some of the files containing embedded images will be large. I don't recommend that you try to download these files from a remote (off-campus site) via a dial-up connection, you will be there all day. Use a UGA site (such as the library or the student-learning center) and save them to a zip disc or CD-R if you want to avoid the print charges.

I will also be sending out reminders regarding assignments, individual small group meetings, and organizational details using the MARS3900SP10@listserv.uga.edu address. Everyone in the course has been added to the Listserv, so please check your email several times a week, particularly at the end of the week and at the beginning of the week. If you miss a class, I will email you concerning details you may have missed, handouts that you need to pick-up, or assignment deadlines. These dates will also be posted on the course web-ct page. It is your responsibility to make-up any missed work within one week of your absence.

Required Texts:

There are no assigned textbooks for this course. Handouts, chapters from books, and some research articles will be distributed to you during class, and it is your responsibility to organize and keep up with your course materials. I would suggest that your use a 3-ring notebook to organize your class materials. I will post a spreadsheet with contact information for the entire class so that you will be able to get in touch with one another to work on your projects outside of class time. The contact information will be distributed via the MARS3900 Listserv and as a PDF posted on web-ct page.

Computer/Digital Media Supplies

You also need to purchase a small flash drive (memory stick) by the second week of class; I recommend **4 Gb or larger**. You should be able to purchase a flash drive at Office Max, Office Depot, Target, WalMart, or one of the campus bookstores (Office Max and Office Deport generally have the lowest prices). We are in the process of scheduling formal computer lab time during the course so that you can work on your lesson plans and classroom presentations. You will need the flash drive to store your files, especially if you are downloading digital images to put into PowerPoint.. Each instructional group will also need to have a blank CD and jewel case to save your final version of your instructional unit to submit as part of your course requirements.

Field Trip:

There is a field trip scheduled to the Florida State Marine Lab in St. Teresa, Florida April 15-18, 2010. Field trip participation is 10% of your course grade. You will canoe on the Wakulla River to survey local coastal plants and animals (if it is a warm spring, and we choose to go later in April, the manatees may be back), snorkel in the turtle grass beds offshore (weather permitting – may need a wet suit), collect live marine specimens for display in the teaching lab, and visit St. Joseph Peninsula State Park for a half day of snorkeling and beach fun. We will have a "snorkel" checkout prior to the trip to ensure that everyone is comfortable in the water with their equipment. Students who do not feel confident with their swimming skills are encouraged to wear life vests while on or in the water during the field trip. Details about the field trip, cost, trip list, etc. will be posted on the MARS 3900 eLC page. This field trip will serve in place of a final exam; you will be marine science mentors to the student currently enrolled in MARS 1025 Honors who participate in the field trip.

Attendance:

Attendance is required. Class participation is 20% of your final course grade. You will be given assignments to work on during class, and your progress during class will be monitored. One class absence may be excused (with written documentation) as long as you do not miss a school visit. More information about absences and UGA student attendance policies can be found at http://bulletin.uga.edu/bulletin/ind/attendance.html and http://www.uga.edu/provost/polproc/aapm/gp/gp406.htm**.** Students who facing significant health or personal challenges should contact the Office of the Vice President for Student Affairs at 706-542-3564. The Vice President for Student Affairs Office will need handle verifying your circumstances and notifying your instructors of your hardship. This is also the office that handles emergency withdrawals. You have 48 hours to notify me following an absence to make-up missed work. Since class participation is a significant part of your course grade, two unexcused absences will result in a letter grade drop in your final course grade.

The class meets Tuesday and Thursday from 12:30-1:45 PM in room 247 of the Marine Sciences Building. You are expected to get to class on time. Excessive tardiness (more than 15 minutes late to class) will negatively impact your final course grade (2 tardies=1 absence). Depending upon when your group is scheduled for a school visit, you may need to depart from UGA prior to 12:00 so that we can travel to the school, set-up, and be ready to present your lesson. Travel to and from local schools will be provided by Marine Sciences.

Access Statement:

The University of Georgia School of Marine Programs and MARS 3900 are committed to providing access for all people with disabilities and will provide accommodations if notified in advance. If you will need large type, Braille, or audio materials, please call me (Dr. Catherine Teare Ketter, 706-583-0862, cmscatk@uga.edu) as soon as you register for the course so that I can get course materials in the appropriate format for you. Since a large component of this course involves work with public schools, we will check accessibility in advance of an school visit. Please notify me at soon as you enroll in the course if you will need a sign language interpreter, assisted listening device, or other classroom accommodations. If you would like to discuss classroom accommodations, please discuss your needs with me (706-583-0862, cmscatk@uga.edu) the first week of class. Due to the physical nature and location of the MARS 3900 Florida field trip locations, please notify me in advance of departure if you will need access accommodations. If you have any special medical and/or dietary restrictions, you will need to discuss those with me prior to the trip to ensure that you have a safe and fun field trip experience.

Incompletes: The grade of Incomplete (I) is given to students who, for reason of accident or illness, were unable to complete a segment of the course. In no case will an Incomplete be given as a means of avoiding a failing grade.

Academic Honesty: All academic work must meet the standards contained in "A Culture of Honesty". Each student is responsible for informing themselves about the standards contained in "A Culture of Honesty" before performing any academic work. Evidence of academic dishonesty will be turned over to the Office of the Vice President for Academic Affairs for consideration and possible action. The minimum penalty for a student found guilty of academic dishonesty is a grade of "F" in the course and a note on the student's transcript. There have been several recent changes in the academic honesty policy at the University of Georgia. This information is available on-line at *http://www.uga.edu/honesty/ahpd/culture_honesty.htm*. Click on the UGA Academic Honesty Policy Statement.

Changes to the Course Syllabus: The course syllabus is a general plan for the course; deviations from the syllabus when necessary, will be announced by the instructor in class. Failure to regularly attend class may result in your being uninformed about changes in the course content or timing of assignments. Students who miss class are responsible for all announcements and assignments given in class.

Cell Phones and Other Personal Electronic Devices: Cell phone should be turned off or placed on "silent mode" during lecture and lab class periods. Please be considerate of your fellow classmates and don't engage in cell phone conversations during class. If you receive an emergency phone call, please ask to be excused from class and conduct your conversation outside of class. Cell phones are expressly forbidden in class during exam periods. IPods and PSP (and other gaming devices) use during lecture and lab class is prohibited. It is distracting to your classmates and disrespectful to your instructor(s). We want to foster a learning environment that encourages active engagement; listening to music, playing electronic games, and text messaging during class or lab does not promote academic success.

Grades: Course grades will be determined as follows:
Class participation: 100 points
Lesson plan: 50 points from instructor/50 points from peers: 100 points
Group work: peer assessment of your contribution to other group members: 75 points
Written assignments throughout the semester: 75 points
School visit participation: 100 points (input from supervising teacher and MARS 3900 instructor(s))
Field Trip participation: 50 points

Extra Credit Options: There are opportunities to earn extra credit or additional community service credit by participating in: assisting with after-school coaching in a local middle school in January and February, helping out faculty from UGA with hosting the Georgia Science Teacher Association meeting in February (details in the course WebCT page to follow), and participating in additional school visits.

Grades will be assigned using the following grading scheme (in accordance with UGA's new +/- grading policy):

100-97 percent - **A+**	**500-484 points**	*79.4-77 percent* - **C+**	**397-385 points**
96-93 percent - **A**	**483-465 points**	*76-73 percent* - **C**	**384-365 points**
92-89.5 percent - **A-**	**464-448 points**	*72-69.5 percent* - **C-**	**364-348 points**
89.4-87 percent - **B+**	**447-435 points**	*69.4-67 percent* - **D+**	**347-335 points**
86-83 percent - **B**	**434-415 points**	*66-63 percent* - **D**	**334-315 point**
82-79.5 percent - **B-**	**414-398 points**	*62-59.5 percent* - **D-**	**314-298 points**
		below 59.4 percent- **F**	**297 or below**

MARS 3900 Lecture Schedule and Corresponding Reading Assignments

Date	Lecture Topic	Reading Assignment	Homework Assignment
Thursday January 07, 2010	Introduction to MARS 3900	Handouts: student learning styles, Cognitive development in Education, outline	Read chapter on cognitive development and bring outline with you to next class
Tuesday January 12, 2010	Introduction to cognitive development and learning	Handouts: same as above; MARS 3900 survey	Bring completed assessment (survey) forms with you to next class
Thursday January 14, 2010	Dr. Steve Cramer, guest speaker, Educational Research; University of Georgia **Introduction to cognitive development** OR ***How people learn.***	Handouts: Rosenshine article "Synthesis of research on explicit teaching"	Cognitive development homework assignment posted on WebCT.
Tuesday January 19, 2010	Introduction to cognitive development OR How people learn; parts of a lesson	Handout – In class group work for participation grade	Read Rosenshine article, write a 1-2 paragraph summary of the article for next class, list 2-3 subject areas you would like to work on for your project

Date	Lecture Topic	Reading Assignment	Homework Assignment
Thursday January 21, 2010	Characteristics of good teaching practices; parts of a lesson 2	In-class handouts	Write two performance objectives and two content objectives for your topic and briefly outline how you would determine if the students mastered the objectives. Bring this information to the next class, due in class 01/26/2010.
Tuesday January 26, 2010	Educational objectives & assessment: Georgia Performance Standards	Readings for cognitive development to be distributed in class.	Check WebCT page for homework assignment 01/29/2009 – parts of a lesson.
Thursday January 28, 2010	Introduction to Inquiry: One instructional strategy; parts of a lesson	Research article assigned to read and summarize – bring written summary to class (3 paragraphs)	Read *Inquiry in Science and in Classrooms* (PRISM) article and *Inquiry Safari.* Work on writing objectives in your group for your lesson.
Tuesday February 02, 2010	Work on developing teaching groups/topics. Start developing presentation outline – **Meet in room 368 of the SLC (Computer lab)**	To be announced **Bring flash drive to SLC computer lab today!**	Outline of your lesson with 2 performance objectives and 2 content objectives keyed to the GPS– you must link what you plan to teach to the state standards.
Thursday February 04, 2010	Dr. Norm Thomson, guest speaker, Science Education, University of Georgia *"Inquiry in the Classroom"* **Meet in Science Education Lab in room 215 in Aderhold Hall.**	Materials posted on class web-ct page	
Tuesday February 09, 2010	Structure of a lesson; Dr. John Ricketts, guest speaker, Agricultural Education, "*Experiential Learning*" Contrasting Inquiry with Traditional Instruction.	Materials posted on class web-ct page	Complete rough draft of lesson plan and propose assessment/classroom activities for your lesson (unit)due in class the following week (February 19, 2009).Summary of Inquiry article and Dr. Thomson & Rickett's presentations, due in class on February 17, 2009.
Thursday February 11, 2010	Work on rough draft of school outreach lesson plan. **Meet in room 368 of the SLC (Computer lab)**	Review handouts for parts of a lesson, educational objectives, and Georgia GPS for your age group	Work in group on revising lesson plan – make time and cost estimates for your lesson. **Bring flash drive to SLC computer lab today!**

Date	Lecture Topic	Reading Assignment	Homework Assignment
Tuesday February 16, 2010	Work on developing teaching groups/topics. Start developing presentation outline – **Meet in room 368 of the SLC (Computer lab)**	Bring lesson plans, reference materials, memory stick or empty CD to save work – we will work in the computer lab this week.	Have all materials scanned and entered into PowerPoint or Word or saved as PDF files for review following spring break. **Bring flash drive to SLC computer lab today!**
Thursday February 18, 2010	Peer review of lesson plans, strategic planning for remaining school visits – work in small groups to locate materials for final presentation. **Meet in room 368 of the SLC (Computer lab)**	Bring lesson plans, reference materials, memory stick or empty CD to save work – we will work in the computer lab this week.	Have all materials scanned and entered into PowerPoint or Word or saved as PDF files for review following spring break. **Bring flash drive to SLC computer lab today!**
Tuesday February 23, 2010	**SCHOOL VISIT** - 9th- 10th grade environmental science class, Jackson Comprehensive High School, Mr. Ron Prescott, TBA	Materials for school visit ready 48 hours prior to the visit.	Remaining class members work in computer lab on lesson.
Thursday February 25, 2010	**SCHOOL VISIT** - 6th grade (earth science) and 8th grade physical science, St. Josephs Catholic School, Athens, GA, Ms. Laura Ward's class	Materials for school visit ready 48 hours prior to the visit.	Remaining class members work in computer lab on lesson.
Tuesday March 02, 2010	**SCHOOLVISIT** - 3rd grade general science, Statham Elementary School, Statham, GA, Ms. Emily Breen, Topic: animal kingdom	Materials for school visit ready 48 hours prior to the visit.	Remaining class members work in computer lab on lesson.
Thursday March 04, 2010	**SCHOOL VISIT** - 3rd grade general science, Statham Elementary School, Statham, GA, Ms. Emily Breen, Topic: animal kingdom	Materials for school visit ready 48 hours prior to the visit.	Remaining class members work in computer lab on lesson.
Tuesday March 09, 2010	**SPRING BREAK**	**SPRING BREAK**	**SPRING BREAK**
Thursday March 11, 2010	**SPRING BREAK**	**SPRING BREAK**	**SPRING BREAK**
Tuesday March 16, 2010	**SCHOOL VISIT** - 10th-12th Oceanography, Collins Hill High School, Lawrenceville, GA; Mr. Ken Leach	Materials for school visit ready 48 hours prior to the visit.	Remaining class members work in computer lab on lesson.

Date	Lecture Topic	Reading Assignment	Homework Assignment
Thursday March 18, 2010	Discussion/development of final project peer review instrument; feedback from school visits; final project assignment Plan April field trip to FSU Marine Lab.	None	1. Groups who have completed school visit should revise their lesson for final presentation and CD. 2. Groups scheduled for March school visits finalize lesson/unit plans and work on assessment
Tuesday March 23, 2010	**SCHOOL VISIT**- 10th-11th grade physical science, South Forsyth High School, Cumming, GA; Ms. Shayla Morrow, Topic: chemical bonding	Materials for school visit ready 48 hours prior to the visit	Continue to polish and complete materials for final class/course presentation in April.
Thursday March 25, 2010	**SCHOOL VISIT** - 8th grade physical science, Malcolm Bridge Middle School, Bogart, GA; Ms. Katie Lewis, Topic: Waves	Materials for school visit ready 48 hours prior to the visit	Continue to polish and complete materials for final class/course presentation in April.
Tuesday March 30, 2010	Discussion/development of final project peer review instrument; feedback from school visits; final project assignment Plan April field trip to FSU Marine Lab	None	Continue to polish and complete materials for final class/course presentation in April.
Thursday April 01, 2010	**SCHOOL VISIT** - 10-12th grade earth system class, North Oconee High School, Bogart, GA; Ms. Marie Saxon	Materials for school visit ready 48 hours prior to the visit.	Continue to polish and complete materials for final class/course presentation in April.
Tuesday April 06, 2010	**SCHOOL VISIT**	Materials for school visit ready 48 hours prior to the visit.	Continue to polish and complete materials for final class/course presentation in April.
April 08, 2010 *Thursday*	Work in small groups to locate materials for final presentation. **Meet in room 368 of the SLC (Computer lab)**	Work on final version of curriculum unit and class presentation	Bring your flash drive/memory to save your work.
Tuesday April 13, 2010	Group Presentations Field Trip Snorkel Checkout; Marine Sciences Pool – TBA Attendance at snorkel checkout is mandatory!	Snorkel Safety Handout – distributed in class and on WebCT	
Thursday, April 15, 2010	Field Trip to Florida State University Coastal and Marine Laboratory: Thursday, April 15-Sunday, April 19, 2010.		

Date	Lecture Topic	Reading Assignment	Homework Assignment
Tuesday April 20, 2010	Group Presentations	Presenters prep their unit and make handouts for MARS 3900 classmates.	Presenters submit final unit materials electronically for curriculum materials CD.
Thursday April 22, 2010	Group Presentations	Presenters prep their unit and make handouts for MARS 3900 classmates.	Presenters submit final unit materials electronically for curriculum materials CD.
Tuesday April 27, 2010	Group Presentations	Presenters prep their unit and make handouts for MARS 3900 classmates.	Presenters submit final unit materials electronically for curriculum materials CD.
Tuesday Final Exam Period	Group Presentations MARS 7360 Research Project presentation	Final peer evaluations (group instrument), individualized review of class work.	All units must be completed and submitted electronically or on media with hard copy.

Topics and dates will be added as the school/program visit schedule is confirmed. The course web site will be updated weekly to reflect scheduling updates. Please check at the beginning and end of each week.