Syllabus - Service Learning CELL 1891-11  Fall 2011

Instructor:  Meenakshi Vijayaraghavan (Percival Stern Hall Room # 4006)
304-862-3154; mviji@tulane.edu

Office hours:  by appointment

Service Learning:

Students who select the Service Learning option will participate in a project centered on a topic in the aspects of general biology, especially related to marine and/or environmental studies, and will be selected by the student(s) in consultation with the instructor and community partner. Participants in service learning will:

1) Complete 20 hours of service on-site excluding travel time. The service learning project will be carried out by the students in groups of two or three. The students can suggest team partners with mutual agreement. At the end of the semester, the instructor will conduct confidential individual surveys to assess the level of qualitative and quantitative participation of the individual team members.

2) Students will be required to collectively keep a journal documenting all aspects of their project activities. The journal entries should be dated and describe in detail the service learning activities.

3) Students are further encouraged to record their self-reflections on the project goals, activities, and outcomes. The instructor will periodically go through the journal, and give the students feedback, advice, and suggestions for incorporation or modification. On certain days Service Learning students will be asked to meet for additional sessions.

Community Partner:

Louisiana Universities Marine Consortium (LUMCON) (Ms. Jennifer "Murt" Conover)

Objective of Partnership:

The community partner, Louisiana Universities Marine Consortium (LUMCON) works with local schools and communities. The service learning option will be offered as part of an Environmental Education Project funded by the U.S. Environmental Protection Agency (EPA). Titled “Playful Learning: Environmental education using underwater robots”, the project aims to educate school children (as well as the general public) on environmental issues using water quality monitoring issues.

Underwater robots were used in the past (2006/08  – fall/ spring) for environmental and marine archeological monitoring of local aquatic environments such as Lake Pontchartrain and Tchefuncte River. School children had opportunities to control the robots and collect environmental data in real-time over the Internet by using techniques of Web-based teleoperation of the robots. Further, hands-on operation of the robot and environmental data collection were demonstrated at schools. We will try to offer such services this semester as well if the schools find the time and resources to be a part of this service (in negotiation).

During the previous semesters, Tulane General Biology Students participating in optional service learning received training in Bayouside Classroom water sampling and data entry/manipulation protocols at the Louisiana Universities Marine Consortium (LUMCON; www.lumcon.edu). The current batch of service learning students will work on refining and
adapting the techniques developed by the earlier groups in order to develop environmental education modules for school education as well as collect and enter the data collected into the LUMCON site which will be accessed by water monitoring centers in and around Louisiana, United States and other member countries.

Commuting to the sites is solely the responsibility of the students.

Service Learning:
Must be conducted during the school day (~7:00-8:30 am – 2:00-3:30 pm – depends on school);

Twenty-hour commitment may include:
One - 2 hours of training in sampling, use of data, safety concerns, and working with teachers/children - this can be conducted at Tulane.
7, 2 - hour service learning visits for collection of data and/or working with data.
The rest of the 4 hours will be devoted to preparing for presentations at LUMCON and/or schools.

Grading Policy:
The grading for the service learning component will be based on the contributions of both the individual and team. It will be based on the amount of time spent on the project (20%), the project outcomes attained (35%), documentation in journal form (30%), as well as a final presentation on the project by the team members (15%).

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home work</td>
<td>10%</td>
</tr>
<tr>
<td>Service Learning</td>
<td>30%</td>
</tr>
<tr>
<td>Three midterm examinations at 10% each</td>
<td>30%</td>
</tr>
<tr>
<td>Comprehensive final examination</td>
<td>30%</td>
</tr>
<tr>
<td>Final grade</td>
<td>100%</td>
</tr>
</tbody>
</table>