MSCI 599 – Special Topics in Marine Science: Aquarium Internship

3 credit hour internship research course at Riverbanks Zoo

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Course Description: Current developments in marine science selected to meet faculty and student interests. Course content varies and will be announced by suffix and title in schedule of courses.

Aquarium Internship: Students will spend 15–20 hours per week conducting research in the Riverbank Zoo’s Aquarium and Reptile Complex (ARC) and specifically working with marine organisms and the salt water aquarium tanks.

Course Learning Outcomes

Upon successful completion of this internship course, students will be able to meet the measurable learning objectives and outcomes listed on the following pages, some of which include:

- Understand how maintaining exhibitory is different from maintaining a “tank”
- Discuss what a collection plan is, and how it is an important tool in public aquariums
- Conduct water chemistry testing for salinity, pH, calcium, alkalinity, nitrate, nitrite, ammonia, and phosphate.
- Understand why tests are performed for each parameter, and how water test results are used in overall husbandry
- Explain the three types of filtration and how they are important in closed systems
- Explain how a protein skimmer works and which systems in the Aquarium have skimmers
- Know all fish families represented in tanks CR9 and CR10; begin to identify to species level
- Identify all invertebrate species in the RS and SS galleries
- Identify all corals in R10
- Understand different lighting regimes used in the Aquarium and impacts on algae
- Understand general dietary requirements of captive fish and invertebrates
- Explain the most common fish parasites and recommended treatments
- Explain the most common fish diseases and recommended treatments

Required text(s) and/or suggested readings:

Students will be provided with several aquarium texts during the course of the internship and will be required to read research papers on specific topics

Course Requirements

- See attached Assignments and details learning objectives for learning outcomes.

Grading schemes and weights

- Students are graded based on attendance and completing the learning objectives on the attached form (90%). 10% of the grade is based on the final paper summarizing internship and its relevance to the student’s career options.
Grading Scheme: Completion of final paper plus: 95-100 percentage completion of the learning objectives is an A, 90-95% completion is a B+, 85-89% completion = B, 80-84% = C+, 75-79% = C, 70-74% = D+ 65-69% = D and less than 65% completion is an F.

Special course policies
Student must complete the application process to be accepted into this program and also interview and be accepted by the Zoo. The basis for acceptance is the most qualified student meeting the following qualifications:

- At least Junior Status and have completed all MSCI required courses through MSCI 314.
- Access to transportation to and from the Riverbanks Aquarium and Zoo
- Work Hours: 15-20 hours per week. Interns must be able to work at least one whole day (8 hours), with the rest of the hours being either another entire day (for 16 hours total) or 2-3, 4-hour blocks (for 16-20 hours total). No more than one session may be scheduled on a weekend day. Working hours are typically 8 am – 5 pm.

Internship Duties Include: (See learning outcomes and attached list for more detailed description of internship)
- Care of animals housed in the Aquarium and Reptile Complex
- Designing and upgrading exhibits
- Tank cleaning and maintenance
- Visitor education and interaction

Application Process:
Submit application form, plus your CV/resume and statement of why you would like to pursue this opportunity, to Jacqueline McClary in EWS 603 (or email mcclaryj@mailbox.sc.edu) by Friday, September 16, 20017. All finalists will then complete the Zoo on-line application and background check and will be interviewed by the Riverbanks Zoo Aquarium Manager, Jennifer Rawlings. More specific details will be provided to the finalists.

Attendance policy is mandatory for successful completion of Internship. Students will set a schedule with the Zoo Aquarium Manager and must complete the number of hours agreed upon.

Office of Student Disability Services policy statement:
- Any student with a documented disability should contact the Office of Student Disability Services at 803-777-6142 to make arrangements for appropriate accommodations.

Academic Integrity:
- The student is expected to practice the highest possible standards of academic integrity and to represent the University in a professional and courteous manner which conducting this internship. Any deviation from this expectation will result in disciplinary measures. This includes improper citation of sources, using another student’s work, and any other form of academic misrepresentation.