

## **Biology 596 001**

## **Critique of Scientific Literature**

Meeting time: TBA

Room: FR1001

Instructor: Michael J. Durako, Office: CMS2337/ FR 1002A, Lab: CMS 2305

Office hours: Tuesdays & Thursdays 8:30-9:30 AM & 11-12 noon

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### **Course Goals:**

The course is designed to help graduate students develop the ability to critically evaluate scientific literature, manuscripts and proposals. Research papers should be examined, not just based on the results and conclusions of the authors, but also based on the methodology and analysis used. Potential shortcomings in the data collection, data quality or analysis should be identified, and the manner in which these shortcomings may influence the validity of the author's conclusions should be considered. In short, scientific literature (as well as other sources of information!) should be viewed objectively and critically ("see what you see, not what you're supposed to see").

### **Course Format:**

Each week will entail an interactive analysis of a recent paper or proposal, which will be presented by a student discussion leader. The theme this semester will be "How will global climate changes affect my biological system." The discussion leader will select a paper to be presented, which will be distributed to the other students 1 week prior to the discussion (send the paper to me first so I can give you feedback regarding appropriateness). It is important that the selected paper is as broadly interesting as possible. All students are expected to read each assignment, complete a comment form and contribute to the discussion. The discussion leader is expected to understand the paper that is being reviewed in sufficient detail to be able to explain it to the class. This may necessitate doing additional background reading to become familiar with a topic.

### **Grading:**

Grades will be based on your contributions to the discussions, the completeness of the comment forms and your role as a discussion leader. I will be happy to give feedback to you during the semester regarding your progress in the class.

### **Attendance:**

Attendance is mandatory, although I understand that some of you will have obligations that may entail missing a class. In the event that you cannot attend a class due to a foreseeable event, please let me know in advance. You will still be expected to read the assigned paper and submit a completed comment form.

**Schedule:**

Week / Date	Discussion Leader	Next Discussion Leader-Paper Type
1 Aug	Durako – 1 <sup>st</sup> paper distributed	Durako – Paper #1
2 Sept	Durako – Paper #1	Durako – Paper #2
3 Sept	Durako – Paper #2	
4 Sept		
5 Sept		
5 Oct		
7 Oct		
8 Oct		
9 Oct		
10 Oct		
11 Nov	<i>No Class CERF Conference</i>	
12 Nov		
13 Nov		
14 Nov	<i>Thanksgiving</i>	
25 Dec		

**I am happy to make accommodations to those students with disabilities. Students should first contact the Office of Disability Services in Westside Hall (3746). After obtaining your referral from the Office of Disability Services, please contact me.**

**The Department of Biology and Marine Biology strongly supports the academic honor code as stated in “The Student Handbook and Code of Student Life” and will not tolerate academic dishonesty.**