

MNS 191 – Seminar in Marine Science: Scientific Communication
Unique # 52780
Spring 2016

Instructor: Brad Erisman
Room 101 Main Lab Building, UTMSI
361-749-6833
berisman@utexas.edu
open office hours

Class Meetings:

Fridays, 1:00 to 2:00 PM, UTMSI Video Classroom (next to administrative offices).

Course Objective:

The goal of this course is for students to improve scientific presentation skills.

Course Structure:

Hallmarks of an effective scientific presentation will be discussed during the first two class periods. Over the course of the semester, each student will develop a presentation and abstract based on his or her research. This talk will first be given in a subgroup of three to four participants where it and the abstract will be peer reviewed. The presentation and abstract will be revised using this feedback and presented at the final course symposium, open to all UTMSI personnel. Readings and other course materials are available on the UT Canvas website.

Course Assignments and Grading:

Students have the option of providing a 15 minute talk (12 minutes for the presentation and three minutes for questions), or an eight minute “pecha-kucha” style talk with 10 slides at 30 seconds each followed by three minutes of questions (see <http://www.pechakucha.org/>). Note that slides in a pecha-kucha talk advance automatically, which forces the talk to be fast-paced and engaging.

Preliminary presentation (20%) Present your talk to your subgroup. See the rubric at the end of the syllabus for how the presentation will be evaluated by BE and all members of the subgroup.

Abstract (20%) Write an abstract for your presentation, maximum of 250 words, organized in a single paragraph with no subsections or headings. See the end of the syllabus for an example as well as the grading rubric. Abstract drafts are due on Mar 25, reviews are due on Apr 8, and final abstracts are due on Apr 15. Only the final abstract will be graded.

Peer review (20%) Peer review of each talk in your subgroup using the rubric at the end of the syllabus (10%). Also review each abstract in your subgroup; return to BE your completed abstract evaluation form (hard copy) and send an edited electronic version of each abstract (using track changes) to the author and BE (10%). Provide any additional constructive comments for the talk during the final symposium.

Symposium presentation (40%) Give your talk at the course symposium. See the rubric at the end of the syllabus for how the presentation will be evaluated. All abstracts will be printed in a symposium program.

Grading Scale

A	93% - 100%	C+	77% - 79%	F	Below 60%
A-	90% - 92%	C	73% - 76%		
B+	87% - 89%	C-	70% - 72%		
B	83% - 86%	D+	67% - 69%		
B-	80% - 82%	D	60% - 66%		

Attendance

Attendance at your group presentation and the final symposium is mandatory. Please let me know as soon as possible regarding conflicts due to illness, family emergency, or other legitimate circumstance, and I will work with you to make up the coursework.

Special Needs

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. To determine if you qualify, please contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, <http://www.utexas.edu/diversity/ddce/ssd>. If they certify your needs, we will work with you to make appropriate arrangements.

Religious Holidays

By UT Austin policy, you must notify us of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Course Schedule

Date	Day	Activity	Assignment
22 January	Friday	Introduction*	
29 January	Friday	No class	Readings and Links
5 February	Friday	How to write an abstract*	Readings and Links
12 February	Friday	Group 1	
19 February	Friday	Group 2	
26 February	Friday	Group 3	
4 March	Friday	Group 4	
11 March	Friday	Group 5	
18 March	Friday	No class (Spring Break)	
25 March	Friday	Group 6	Abstract draft due (to subgroup and BE)
1 April	Friday	No class	
8 April	Friday	No class	Abstract reviews due (to subgroup and BE)
15 April	Friday	No class	Final abstracts due (to BE)
22 April	Friday	Symposium logistics*	
28 Apr	Thursday	Symposium*	1:00-5:00 PM, auditorium
29 Apr	Friday	Symposium*	9:00- 11:30 AM, auditorium

* Entire class meets

Group Assignments

Group 1

Aubrey Converse
Kaijun Lu
Chris Biggs
Christina Bonsell

Group 2

Erin Reed
Meredith Evans
Charles Tang
Alexis Khursigara

Group 3

Yida Gao
Hengchen Wei
Claire Griffin
Matthew Seeley

Group 4

Matthew Dzaugis
Victoria Congdon
Craig Connolly
Kiley Seitz

Group 5

Shuting Liu
Nick Reyna
Corinne Burns
Angelina Dichiera

Group 6

Jason Jenkins
Joshua Lonthair
Xin Xu

Date: _____

Name of Presenter: _____

Name of Reviewer: _____

Instructions: Rank each category on a scale of 1 (poor) to 5 (excellent)

1. Organization

- Logical sequencing of slides _____
- Appropriate amount of material discussed _____
- Central theme of talk well established _____
- Maintained focus on main points _____
- Finished talk on time _____

2. Presentation style

- Spoke clearly and confidently (poise) _____
- Pace of presentation _____
- Spoke to audience, not the screen _____
- Limited speech fillers (umms and uhhs) _____
- Handling of questions _____

3. Technical aspects of presentation

- Slides were easily readable _____
- Graphics/animation effective _____
- Text on each slide limited to major points _____
- Graphs/tables well explained _____

Specific Comments

Date: _____

Name of Author: _____

Name of Reviewer (optional): _____

Instructions: Rank each category on a scale of 1 (poor) to 5 (excellent)

1. Content

Title _____

Concise and descriptive

No jargon

Captures the theme of the abstract

Background _____

Why did we do our work?

What is/are the specific problem(s) that motivated us?

What are the hypotheses being tested?

Methods _____

Who did what, when, with how many, where?

How did we do it?

What was our methodology?

Results _____

Was the hypothesis supported?

The key results are summarized and quantified

What did we learn?

Conclusions _____

Why should I care?

What are the implications for the broader scientific community?

2. Technical aspects

Writing is clear, direct, and efficient _____

No undefined jargon or acronyms _____

Abstract body is limited to 250 words _____

Specific Comments

Projected Shifts in the Distribution and Phenology of Nassau Grouper (*Epinephelus striatus*) Spawning Aggregations

Rebecca Asch, Princeton University, Program in Atmospheric and Oceanic Sciences
Brad Erisman, University of Texas at Austin, Marine Science Institute

Spawning fishes often have narrower thermal tolerances than other life stages. Consequently, spawning has been hypothesized to constrain how species will respond to climate change. We evaluate this hypothesis by combining a global database of fish spawning aggregations with earth system and ecological niche models to project shifts in the spawning distribution and phenology of Nassau grouper (*Epinephelus striatus*) under the RCP 8.5 climate change scenario. This species is a top predator on Caribbean coral reefs and is listed as endangered due to overfishing of its spawning grounds. The highest probability of encountering *E. striatus* aggregations occurred at sea surface temperatures (SSTs) of 24.5-26.5° C and seasonal SST gradients of 0 to -1° C. Based on a historical climatology, our model projected that the highest probability of spawning occurs around Cuba, the Mesoamerican barrier reef, the Bahamas, and other areas of the Caribbean. This coincides with the observed distribution of grouper aggregations. By 2081-2100, a 50% decline is projected in the number of months and locations with adequate conditions for spawning. Potential *E. striatus* spawning habitat shifts northward and eastward, with slight increases in the probability of spawning around Aruba, Curacao, and Bonaire. The *E. striatus* spawning season is projected to contract and occur later in the year. Two-month delays in phenology are projected at 78% of sites where *E. striatus* is managed through spawning season sales bans and fishing closures. This implies that adaptive management in response to climate change will be needed for management measures to remain effective.

Note: There are often far more applicants for talks than there are available timeslots. Thus, conference organizers must use abstracts to decide which talks will be accepted. Only the most soundly designed and innovative studies will be accepted, especially at large international meetings. Here are some common scoring criteria; would your abstract rank well?

Scoring system:

- A. Clarity of purpose and objectives of the study
 - Are the objectives clear and well presented?
- B. Appropriateness of the methodology and study design
 - Are the methods appropriate; is the data analysis appropriate?
 - Is the interpretation appropriate?
- C. Significance of the contribution
 - Are the conclusions clear and appropriate?
 - Is the study innovative, and does it provide new insights?
 - Does the study advance knowledge and have broad implications?

Readings about Scientific Presentations

Pierson, DJ. 2004. How to write and abstract that will be accepted for presentation at a national meeting. *Respiratory Care* 49:1206-1212.

Ruetz, CR. 2012. Poster and oral presentations at professional meetings. *In* Jennings et al. Scientific Communication for Natural Resource Managers, American Fisheries Society. 180p.

Ross, C., Hankerson, S., Irwin, M., Stone, A., Higley, D. 2007. Giving a Good Scientific Presentation. American Society of Primatologists Education Committee.

Mark Schoeberl and Brian Toon – Ten Secrets to Giving a Scientific Talk.

Wiggins, C. How to write a paper. Nature Blogs.

Readings about Abstracts

Anonymous. How to construct a Nature summary paragraph.

Julie Gould – Writing for International journals: tips and techniques

Gookin – Essentials of Oral Abstract Presentation

JIAS – How to Write a Prize-Winning Abstract

Pierson – How to Write an Abstract...National Meeting

Web Links

[A Non-Talk on Giving Talks](#), by Lucianne Walkowicz. Contains some great, albeit sometimes irreverent, advice that covers everything from empathizing with your audience to using the right fonts and slide transitions: <http://tangledfields.com/2014/06/10/a-non-talk-on-giving-talks/>

Resources on giving a 10-15 Scientific Presentation:

<http://www.northwestern.edu/climb/resources/oral-communication-skills/creating-a-presentation.html>

Youtube video providing help in Designing an effective Scientific Presentation from Stanford University: <https://www.youtube.com/watch?v=Hp7ld3Yb9XQ>

Some tips on presentations from Elsevier:

<https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation>

How to “pimp” your powerpoint presentation by Scientist magazine:

<http://www.the-scientist.com/?articles.view/articleNo/28818/title/Pimp-your-PowerPoint/>

Powerpoint Files

Kenneth Suslick – “Seminar on Seminars”

McConnell (Stanford) – “Giving an Effective Presentation: Using Powerpoint and Structuring a Scientific Talk”