Communicating Science Seminar  
(MARB 6312.001/CMSS 6312.001) 
Department of Life Sciences  
Spring 2020

A. COURSE INFORMATION

Course number/section: MARB 6312.001/CMSS 6312.001 (3 Credit Seminar)
Class meeting time: TR 3:30-4:45PM
Class location: OCNR 258
Course Website: https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION

Instructor: Keisha Bahr, Ph.D.
Office location: TH 242
Office hours: TR 12:00-3:00 PM and by appointment
Telephone: 361-825-3707
e-mail: Keisha.Bahr@tamucc.edu
Appointments: Made at least 24 hrs in advance by email

C. COURSE DESCRIPTION

Catalog Course Description  
(3 credit) Meets twice weekly in 75-minute blocks. Covers communication topics ranging from proposal writing to professional presentations with a minor emphasis on additional non-traditional communication formats. Must be taken to fulfill degree plan requirements by all Marine Biology graduate students and is recommended in the first spring of the degree.

Extended Course Description

Research requires more than just developing and executing scientific investigations, communication of the work is an essential part of the research process. Important parts of science communication include the communication of ideas to secure funding to support research endeavors, orally presenting one’s work to colleagues in professional settings, communicating polished research products via peer reviewed journal articles, and communicating research themes and messages to broader audiences via websites, interviews, and other non-traditional science communication formats. This class covers these themes with a specific emphasis on grantsmanship and oral communication.

Grantsmanship, the skill of developing and writing grant proposals, is an important part of this process that differs fundamentally from writing peer reviewed manuscripts or technical reports. Proposals must capture the reader’s interest, sell the ideas of the author, and be compelling enough to justify funding at the expense of other competing proposals. This format, selling ones ideas, requires a different strategy than simply reporting the facts. In the first part of the course students will develop their grant writing skills by reading instructional material on how to write proposals, identifying funding targets, reading and critiquing real proposals on a
variety of topics, and engaging in discussion with peers. Then students will begin writing a new grant proposal on a topic of their choice aimed at a target of their choice that will be subject to peer review and then turned in at the end of the semester. Students will be encouraged to also submit these proposals to real funding agencies.

Modern researchers have a responsibility perform high quality research and to communicate that research. Oral communication is a cornerstone of that work and conference presentations play an important role in disseminating knowledge to colleagues and potential collaborators. In the second part of the class students will hone their communication skills through directed readings, discussions, and interactive activities and assignments, culminating with a class symposium where students present their research in a public forum. Topics covered will include the basic presentation style, the art of distilling a message into a narrative using the Hegelian triad, the pros and cons of IMRAD, and techniques for communicating with non-scientific audiences.

D. PREREQUISITES AND COREQUISITES

Prerequisites

None

Corequisites

None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)

Recommended Textbook(s)

Supplies

None

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging
areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:

1. Identify funding targets
2. Identify specific interests and emphases relevant to different funding targets
3. Identify and develop broader impacts relevant to their work
4. Develop a grant proposal tailored to a particular funding target
5. Make adjustments to future proposals based on feedback following rejection
6. Distill their research into a simple narrative for rapid communication to a variety of different target audiences
7. Tailor their core message to different audiences and speaking formats
8. Develop and give a 5 minute presentation on their work using a single projected poster as a visual aid
9. Give a 10 minute presentation on their research topic using only a chalkboard or whiteboard
10. Develop and give a 15 minute conferences style presentation using PowerPoint or Prezi

G. INSTRUCTIONAL METHODS AND ACTIVITIES

The course will be taught through targeted readings, discussion, and interactive exercises.

MAJOR COURSE REQUIREMENTS AND GRADING

The learning outcomes stated earlier will be assessed through a variety of methods as noted in the following table.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance and Participation</td>
<td>10</td>
</tr>
<tr>
<td>Proposal</td>
<td>30</td>
</tr>
<tr>
<td>Conference Style Presentation</td>
<td>25</td>
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<tr>
<td>Poster Presentation</td>
<td>10</td>
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<tr>
<td>Chalk Talk</td>
<td>25</td>
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</table>

*Entry to the classroom will be closed on the day of final exam soon as the first student to complete an exam has left the room. Students absent or arriving after room closure will receive a zero for the exam.

Grading: There will be a class project that occurs outside of the normal classroom meeting time which will be graded through participation in peer review and a proposal report due at
the end of the semester (style will be discussed in class). Class attendance and participation will also be strongly factored into your final grade. The grading scale is: A=90-100%, B=80-89%, C=70-79%, D=60-69%, and F=0-59%. All grades will be rounded to the nearest whole number, therefore, a grade of 88.50% would be rounded to 89% (A) and a grade of 88.49% would be an 88% (B).

H. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Class Activity</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>1/21/2020</td>
<td>Class Introduction and Expectations</td>
<td>Reading: pg. 29-78</td>
</tr>
<tr>
<td>Thursday</td>
<td>1/23/2020</td>
<td>Introduction to Scientific Writing @ Writing Center</td>
<td>Reading: pg. 87-97</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1/28/2020</td>
<td>Composing a Lit Review @ Writing Center</td>
<td>Reading: pg. 114-135; Begin lit review for research</td>
</tr>
<tr>
<td>Thursday</td>
<td>1/30/2020</td>
<td>Strategies for Extended Writing @ Writing Center</td>
<td>Reading: pg. 101-113; 210-227; Form writing pairs/goals</td>
</tr>
<tr>
<td>Tuesday</td>
<td>2/4/2020</td>
<td>Public Speaking Techniques</td>
<td>Reading: pg. 293-310</td>
</tr>
<tr>
<td>Thursday</td>
<td>2/6/2020</td>
<td>Public Speaking Techniques</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>2/11/2020</td>
<td>Public Speaking Techniques</td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>2/13/2020</td>
<td>Funding Sources and Tips</td>
<td>Reading: pg. 151-165; Prepare Funding List</td>
</tr>
<tr>
<td>Tuesday</td>
<td>2/18/2020</td>
<td>Anatomy of a proposal</td>
<td>Outline Research Proposal</td>
</tr>
<tr>
<td>Thursday</td>
<td>2/20/2020</td>
<td>Competitive Grants Discussion (NSF)</td>
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<tr>
<td>Tuesday</td>
<td>2/25/2020</td>
<td>Competitive Grants Discussion (others)</td>
<td>Draft Research Proposal</td>
</tr>
<tr>
<td>Thursday</td>
<td>2/27/2020</td>
<td>Research Proposal Discussion</td>
<td>Reading: pg. 166-191; <strong>DUE: Proposal Outline</strong></td>
</tr>
<tr>
<td>Tuesday</td>
<td>3/3/2020</td>
<td>Anatomy of Scientific Poster</td>
<td>Reading: pg. 192-209</td>
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<tr>
<td>Thursday</td>
<td>3/5/2020</td>
<td>Anatomy of Conference Presentation</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>3/10/2020</td>
<td>SPRING BREAK</td>
<td>Prepare Digital Poster &amp; Conference Presentation</td>
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<tr>
<td>Thursday</td>
<td>3/12/2020</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>3/17/2020</td>
<td>Digital Poster Presentations</td>
<td></td>
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<tr>
<td>Thursday</td>
<td>3/19/2020</td>
<td>Digital Poster Presentations</td>
<td></td>
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<tr>
<td>Tuesday</td>
<td>3/24/2020</td>
<td>Conference Presentations</td>
<td>Prepare for MSGSO Annual Research Forum</td>
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<tr>
<td>Thursday</td>
<td>3/26/2020</td>
<td>Conference Presentations</td>
<td><strong>DUE: Proposal Draft</strong></td>
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<tr>
<td><strong>MSGSO Research Symposium March 27-28, 2020</strong></td>
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<tr>
<td>Tuesday</td>
<td>3/31/2020</td>
<td>Strategies for Effective Peer Review @Writing Center</td>
<td>Reading: pg. 78-86; <strong>DUE: Peer Review</strong></td>
</tr>
<tr>
<td>Thursday</td>
<td>4/2/2020</td>
<td>Peer Review and NSF Panel prep</td>
<td>Prepare for NSF Panel</td>
</tr>
<tr>
<td>Tuesday</td>
<td>4/7/2020</td>
<td>NSF Panel</td>
<td>NSF Panel Summaries</td>
</tr>
<tr>
<td>Thursday</td>
<td>4/9/2020</td>
<td>NSF Panel</td>
<td>NSF Panel Summaries</td>
</tr>
<tr>
<td>Tuesday</td>
<td>4/14/2020</td>
<td>Anatomy of other talks</td>
<td><strong>DUE: NSF Panel</strong></td>
</tr>
</tbody>
</table>
### Schedules:

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday 4/16/2020</td>
<td>Professional Development</td>
<td>Reading: pg. 228-254</td>
</tr>
<tr>
<td>Tuesday 4/21/2020</td>
<td>Professional Development</td>
<td>Prepare CV</td>
</tr>
<tr>
<td>Thursday 4/23/2020</td>
<td>Mock Interviews</td>
<td>Prepare Chalk Talk</td>
</tr>
<tr>
<td>Tuesday 4/28/2020</td>
<td>Chalk Talks</td>
<td>Submit peer feedback and finalize proposal</td>
</tr>
<tr>
<td>Thursday 4/30/2020</td>
<td>Chalk Talks</td>
<td></td>
</tr>
<tr>
<td>Tuesday 5/5/2020</td>
<td>Chalk Talks</td>
<td>DUE: Proposal</td>
</tr>
<tr>
<td>Thursday 5/7/2020</td>
<td>Chalk Talks</td>
<td></td>
</tr>
</tbody>
</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

### I. COURSE POLICIES

#### Attendance/Tardiness

Each student’s individual career experiences provide valuable perspective to their peers. Therefore, it is critical that you attend class regularly to be a partner in this enhanced learning environment. At each class meeting, attendance will be noted. It is each student’s responsibility to contact the instructor directly (phone or e-mail), in advance, if class will be missed. The instructor will not accept late work without valid reasons.

Students with a university approved scheduled absence (athletics, military duty, etc.) must contact the instructor well in advance (>72 hrs) of a scheduled absence. Exams may be taken early in those specific cases. Students who do not arrange to take exams ahead of time will not be eligible for this special consideration. A written excuse from the university department involved is required.

Students are encouraged to contact the instructor anytime they are not achieving their intended level of success, prior to taking any other action. Students who need to withdraw must complete an official form and submit it consistent with college policy no later than the official published date. “Incomplete” grades are awarded only when an emergency prevents a student from completing a minor portion of the course assignments. Active participation is a part of your grade. It includes (1) asking questions; (2) answering questions with supportive evidence; (3) responding to other student’s comments, etc. Students are expected to be on time for class, to address others with respect, and to project an attentive and concerned demeanor.

#### Late Work and Make-up Exams

All exams count toward your class grade. No exam grade will be dropped. No make-up exams will be given. If an exam is missed with proper prior notification, the test may be taken as soon as possible after the exam date, but no later than the following class day. If the exam is not taken a grade of zero (0) will be entered.
Cell Phone Use
The use of cell phones and other personal electronic devices (PEDs) are prohibited during class. All cell phones must be turned off during the class period. If you are emergency personnel (i.e., EMT, fire, or police) you may set your device to vibrate. Any student who uses a cell phone to make or answer a call, send and read text messages or e-mails (other than TAMUCC emergency messages), or any other use of a personal electronic device during class may have that device confiscated and be asked to leave class, which will be considered an absence for that class. No student has the right to disturb the teaching and learning process. Voice recording of lectures is allowed, but no video/photography are allowed during class, except with instructor permission.

Laptop Use
Laptop computers and tablets may be used in the classroom for taking notes, as long as they are not a nuisance to other students. However, laptops shall not be used for items as noted above for cell phones or PEDs.

Food in Class
There is NO eating or drinking in the classroom or in the lab.

Missed Exam
If an exam is missed with proper prior notification, the test may be taken as soon as possible after the exam date, but no later than the following class day. If the exam is not taken by then a grade of zero (0) will be entered. If the final is missed without proper prior notification and arrangement, a grade of zero will be entered for the final exam.

Missed Exam
If an exam is missed with proper prior notification, the test may be taken as soon as possible after the exam date, but no later than the following class day. If the exam is not taken by then a grade of zero (0) will be entered. If the final is missed without proper prior notification and arrangement, a grade of zero will be entered for the final exam.

Participation
Four or more absences, with the exception of death in the family, sick child/spouse, or personal sickness may result in a failing grade at the discretion of the instructor. You must contact the instructor by phone message or e-mail before class to let the instructor know of your absence.

Other
Plagiarism and Cheating will not be tolerated.

Plagiarism: The Merriam-Webster Dictionary defines plagiarism as "To pass off as one’s own words or ideas of another.”
Plagiarism involves:
• Submitting another person's work as one's own
• Submitting work from any source that is not properly acknowledged by footnote, bibliography, or reference within a paper
• Submitting work pieced together from phrases and/or sentences from various sources without acknowledgement
• Submitting work with another person's phrase(s) rearranged without acknowledgement
• Submitting work that uses any phrase, sentence, or stylistic mannerism without acknowledgement
• Omitting quotation marks from any directly quoted material
• Failure to use three dots (...) to indicate omission of one or more words
• Any other actions deemed to be plagiarism by the faculty

Cheating is defined as:
• Copying to any extent the work of another student
• Intentionally assisting another student during an examination
• Having access to material related to an examination during an examination
• Possessing or having access to unauthorized copies of an examination
• Departing from any stated examination conditions
*Cheating or other academic dishonesty for exams and assignments will not be tolerated and will result in a Failing (F) grade for the class and suspension.

J. COLLEGE AND UNIVERSITY POLICIES

• Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

**Deadline for Dropping a Course with a Grade of W (University)**
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. **Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.** Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

**Grade Appeals (College of Science and Engineering)**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

**Disability Services**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**K. OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

- **Methods of Achieving Success**
  Achieving success in this course will require a time commitment outside of class that averages three to six hours per week for reading and studying. Students benefit from actively participating in the field work, classroom discussion, and lab demonstrations and activities.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.