

**ANFS 450/650, Section 015- Applied Biomedical Communication
Course Syllabus Fall 2015**

Welcome to Biomedical Communication! I am really looking forward to working with you this semester to develop and strengthen scientific writing and oral communication skills that you will use throughout your studies at UD and, hopefully, throughout your intended careers. Unlike other courses in which students tend to compare themselves to peer performance, in Biomedical Communication the emphasis is on personal growth and development. This semester, I hope you will challenge yourself to carefully examine how you currently communicate, to explore new writing styles and communication techniques, to consider both the importance of ethical conduct and consequences of misconduct in the sciences, and to offer and receive constructive criticism to move your skills and your peers' to a whole new level.



Class sessions will meet on:

Tuesdays and Thursdays from 12:30-1:45 p.m. in Room 009 Townsend Hall.

Professor and Office Hours:

Dr. Erin M. Brannick, Assistant Professor and Veterinary Anatomic Pathologist
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Office hours: **Tues. and Wed. 2-4 p.m.** Drop-in visits are welcome, though an appointment is encouraged if visit is expected to last longer than 15 minutes due to concurrent service duties.

NOTE: The professor will make every effort to respond to email and phone messages within 24 hours. Due to family constraints, this may not always be possible. Please be patient and send a reminder email if you have not received a response within 24 hours.

Course Description: ANFS 467/667: Biomedical Communication is a **writing intensive** course in the Department of Animal & Food Sciences which covers technical and practical knowledge and skills pertaining to written, visual, and oral communications in the biomedical sciences. Class sessions will be 3 hours weekly (3 CREDITS), consisting of brief lectures followed by independent and group active learning experiences and writing sessions to reinforce lecture topics and to allow practice of related skills. Ethical conduct in scientific research and publication will be emphasized and discussed throughout the course. The majority of the course grade is based upon the student's written product (manuscript drafts and completed manuscript, course notebook entries, personal reflection pieces, peer review commentary and response, and ethical case study responses).

Course Prerequisites: ENGL 110 or equivalent- Required.

Second Writing Requirement: Applied Biomedical Communication fulfills a **second writing requirement** toward graduation for students in UD ANFS majors (PVAB, ANFS, FS).

NOTE: Students in majors outside the Department of Animal and Food Sciences or who need an additional communication course for graduate/professional school admissions must contact those departments or intended institutions of professional study with a course syllabus to determine whether this course is acceptable for the purposes outlined by those programs. It is the student's responsibility to contact programs and to supply the syllabus, though the professor will supply additional information about the course upon request if needed.

Textbook and other Resources: There will be no formal textbook required for this course. Weekly readings will be assigned from peer-reviewed and lay publications to introduce and reinforce concepts covered in lecture. Weekly readings will either be made available on the course website in Canvas (login link below) at least 1 class period prior or will be presented in class as part of active learning exercises.

Website for Canvas Log-In: <http://www.udel.edu/canvas/>

Website for UD Capture course recordings:
<https://udcapture.udel.edu/2015f/anfs450-010/>

Course Objectives and Learning Outcomes:

This course fulfills **all** of the following University of Delaware **learning objectives**, preparing students who are able to:

- (1) Read critically, analyze arguments and information, and engage in constructive ideation.
- (2) Communicate effectively in writing, orally, and through creative expression.
- (3) Work collaboratively and independently within and across a variety of cultural contexts and a spectrum of differences.
- (4) Critically evaluate the ethical implications of what they say and do.
- (5) Reason quantitatively, computationally, and scientifically.

Furthermore, this course fulfills multiple UD Department of Animal & Food Sciences program **learning goals**, as follows:

Students will (Goal 1, 2) demonstrate oral and written communication skills important for communicating scientific ideas, (Goal 3) use critical thinking and reasoning, skeptical inquiry and scientific approach to solve problems, and (Goal 4) demonstrate knowledge of the major core concepts in the animal and food sciences.

Learning outcomes- By the completion of the course, each student should be able to:

- Apply scientific method to construct and test a simple hypothesis.
- Identify audience, level of formality, and types of communications commonly encountered in biomedical fields and modify communications accordingly.
- Recognize and begin to utilize technical biomedical terminology (jargon), as well as both passive and active voice.
- Understand and be able to demonstrate proper rules regarding authorship and reference citation.
- Locate and distinguish among primary, secondary, and tertiary references.
- Describe components of the Abstract + IMRAD format typical to biomedical peer-reviewed literature and appropriately synthesize a written, visual, or oral communication project utilizing this format.
- Critically analyze biomedical literature, including: Review articles, Scientific reports, Case reports, Brief Communications, etc.
- Evaluate scientific work of peers for technical merit, scientific reasoning, and ethical conduct.
- Relate scientific knowledge and defend project conclusions to peers through written, visual, and oral communication methods.
- Analyze and evaluate ethical dilemmas which may arise during the conduct and publication of scientific research through peer to peer discussions and through case studies presented by students to a broader scientific audience.

Course Policies:

- 1) Students are responsible for planning for and meeting all course assignment deadlines.** This course instills and relies upon strong individual time management skills to complete a full-length scientific manuscript and related presentation materials. The course project is broken down into smaller assignments due at weekly to biweekly intervals. Assignments turned in late will receive reduced grades as outlined in assignment rubrics and feedback may be returned later than for materials received on or before course deadlines. **To complete the course project effectively, each student must stay aware of assignment deadlines, write regularly, and turn in materials and seek feedback in a timely manner.**
- 2) Materials for this course will be administered through Canvas which should be checked regularly.** The syllabus, course calendar, student grades, and course materials are provided electronically through this site. Contact Dr. Brannick with any access-related issues with the site.
- 3) Students are responsible for completing reading assignments prior to class sessions unless provided during in-class activities.**
- 4) To understand the importance of ethical conduct in research and publication, participation in online and classroom ethical discussions (Integral Ethics case**

studies) is strongly encouraged and will count toward the final grade.

- 5) **To be respectful toward peers, attendance is mandatory during the peer-review class sessions and for 4 project presentation days. Students are responsible for arranging to obtain missed course materials and meeting all posted deadlines in the event of an absence from any other class session.** Regular attendance throughout the course is essential as much of the course notebook grade relies upon reporting and analysis of in-class activities. Also, reading materials and assignments are often distributed during class. All assignments must be submitted by posted deadlines. Only students with excused absences (illness, family emergency, etc.) who have notified the professor at or before the time of absence will receive full credit for assignments received after posted deadlines.
- 6) **A respectful learning environment is expected in the classroom.** Please treat others with respect and courtesy to encourage open discussion. Electronic devices except those used for note-taking and coursework should be silenced and stored before class. Off-topic conversations should be kept to a minimum during group activities.
- 7) **Disability Statement:** Students who may require accommodation in this course should notify the instructor **within the first two weeks of the course**. The student is also responsible for contacting the Office of Disabilities Support Services [Phone: 302-831-4643, Address: Alison Hall, Suite 119, 240 Academy St.]. Additional information about support services is available online at <http://www.udel.edu/DSS/>.
- 8) **Academic Dishonesty:** Academic dishonesty will NOT be tolerated in this class. Students are expected to complete their own work on assignments and to contribute fully when working in groups. Students found plagiarizing or otherwise cheating on assignments and any students assisting classmates in this behavior will be reported immediately to The Office of Student Conduct for disciplinary action. Students with knowledge of peer misconduct should immediately notify the instructor or the Office of Student Conduct (<http://www.udel.edu/studentconduct/>).

COURSE ASSIGNMENTS, GRADES, AND SCHEDULE

There are no examinations in this course. As a writing-intensive course, the majority of the student's grade is based upon instructor evaluation of written product. Grading is based on detailed record-keeping and reflection in a course notebook, successful completion and presentation of a course project (scientific manuscript and related presentation materials), and participation in ethics case discussions as follows:

Course Notebook:

In order to witness personal growth as a writer and scientist and to track progress on the term project, students will be responsible for maintaining a bound notebook for daily course activities, periodic self-reflection pieces, and response to in-class writing prompts, while observing proper scientific record-keeping methodology. Notebooks will be collected

and critiqued at 3 points during the semester for composition and content. NOTE: Students may want to use a separate notebook for taking notes during lecture since periodic collection could interfere with student access to notebook content.

Term Project:

With guidance, students will each select a project topic and communication focus by the end of the second week of class. To apply course concepts, each student will design and conduct a simple research experiment which will serve as the basis for a full length scientific written manuscript in abstract + IMRAD format. While all students will produce a manuscript, students can select from 3 presentation formats to share their findings with a peer audience:

- 1) **OPTION A- Writing communication focus:** Preparation of a visual handout and informal oral report for a mock laboratory meeting. More grading weight is given to instructor and peer evaluation of the manuscript at the time of peer review.
- 2) **OPTION B- Visual communication focus:** Preparation of a poster in Abstract + IMRAD format with small group informal/formal oral presentation for a mock “judged” poster session.
- 3) **OPTION C- Oral communication focus:** Preparation of a formal live or video-recorded oral presentation featuring the student with prepared visual materials (PowerPoint, Prezi, or live demonstration) for a mock scientific meeting.

All project formats will include written, visual, and oral communication components, but greater weight will be given to one component for grading purposes based upon the student’s selected communication interest, as outlined in the grading scheme on Pg. 6. Students can either elect to work primarily within known communication strengths or use this opportunity to practice in areas of perceived communication weakness. Specific guidelines will be given to students at the outset of the project and progress will be checked regularly throughout the semester as part of the final project grade (see “Project checkpoints” below). Regular instructor and peer review of course product for both composition and content will be offered throughout the semester.

Ethical Conduct of Research Discussions:

Each week, an “Ethical Dilemma” case study involving scientific misconduct or a questionable ethical situation will be posted to the Canvas site. Students will be responsible for responding in a meaningful way to related questions and peer comments for at least 5 cases presented throughout the semester. Students can elect to research and submit an additional case study of their own beyond those presented on the site in lieu of responding to 1 “Dilemma” case.

Grading scheme:

Assignment grading rubrics will be made available to students in advance of deadlines for each class assignment. Final grades are based upon the points accumulated up to the maximum of 600 points as follows:

| COURSE ITEM | | POINTS POSSIBLE | | | |
|--------------|------------------------------------|---|--------------------|------------------|-----|
| TERM PROJECT | | OPTION A Written | OPTION B Visual | OPTION C Oral | |
| | | Project Checkpoints (Proposals /Drafts) | 100 | 100 | 100 |
| | | Written Communication (Manuscript) | 150 | 100 | 100 |
| | | Oral Communication (Presentation) | 50 | 100 | 150 |
| | | Visual Communication (Visual Materials) | 100 | 100 | 50 |
| | Peer review- Comments for authors | 50 | | | |
| | Peer review- Response to reviewers | 25 | | | |
| | Class notebook entries/reflections | 75 | | | |
| | Ethical dilemma case participation | 50 | | | |
| | TOTAL POINTS | 600 | | | |

Grades by course level: Students enrolled at the 600 level will complete the same assignments (above) as students at the 400 level, but will be held to a higher standard for depth and professionalism of work produced. Final grades for both levels will not be curved and the final letter grade will be issued on the following grade standard:

| Points Accumulated | % | Letter Grade |
|--------------------|---------|--------------|
| > 552 | > 92 | A |
| 540 – 552 | 90 – 92 | A- |
| 522 – 539 | 87 – 89 | B+ |
| 498 – 521 | 83 – 86 | B |
| 480 – 497 | 80 – 82 | B- |
| 462 – 479 | 77 – 79 | C+ |
| 438 – 461 | 73 – 76 | C |
| 420 – 437 | 70 – 72 | C- |
| 402 – 419 | 67 – 69 | D+ |
| 360 – 401 | 60 – 66 | D |
| < 360 | <60% | F |

Class Schedule:

| DATE | LECTURE TOPIC | ASSIGNMENT |
|-------------|--|---|
| 9/1/15 | 1. Overview and Purpose of Biomedical Communications | Due by midnight on date unless noted. <input checked="" type="checkbox"/> Project checkpoint  Notebook due |
| 9/3/15 | 2. Scientific Method, Reasoning, and Hypothesis formation | 9/3- <input checked="" type="checkbox"/> VARK questionnaire results due |
| 9/8/15 | 3. Audience, Types of Communications | |
| 9/10/15 | 4. Language and Voice | |
| 9/15/15 | 5. Lab Meeting #1- present project proposals [BOLD = Attendance required] | 9/15- <input checked="" type="checkbox"/> Project proposal (1pg) due* (*beginning of class) |
| 9/17/15 | 6. Content- “Abstract” and IMRAD Format | |
| 9/22/15 | 7. Authorship, References, and Citation- Guest Lecture | |
| 9/24/15 | 8. Content- Introduction | 9/24-  Notebook Review #1 |
| 9/29/15 | 9. Content- Materials & Methods | 9/29- <input checked="" type="checkbox"/> Reference list due |
| 10/1/15 | 10. Review Articles, Scientific Reports, & Case Studies | |
| 10/6/15 | 11. Case study presentations and ethics group discussion | 10/6- <input checked="" type="checkbox"/> Introduction due |
| 10/8/15 | 12. Brief Communications, Editorials, and Lay Press Articles | |
| 10/13/15 | 13. Content- Results | 10/13- <input checked="" type="checkbox"/> Materials & Methods due |
| 10/15/15 | 14. Content- Analysis | |
| 10/20/15 | 15. Lab meeting #2- Project progress report | 10/20- <input checked="" type="checkbox"/> Progress report (1pg) due* (*beginning of class) |
| 10/22/15 | 16. Statistical reporting-Guest lecture | 10/22-  Notebook Review #2 |

| | | |
|----------------------|--|---|
| 10/27/15 | 15. Visual communications- Scientific Posters, Bulletins, Pamphlets, etc. | |
| 10/29/15 | 16. Oral communications- Informal and formal oral presentations | |
| 11/3/15 11/5/15 | 17. Content- All Together Now (Discussion/Conclusion, Disclosures, Acknowledgements, etc.) 18. Revision & Editing | 11/3 <input checked="" type="checkbox"/> Results & Analysis due |
| 11/10/15 11/12/15 | 19. Journal Selection and Impact Factor, Professionalism in Peer Review 20. Peer Review Process | 11/12- <input checked="" type="checkbox"/> Submit full project manuscript- 3 copies for peer/editorial review* (*Beginning of class, 30 pts) |
| 11/17/15 11/19/15 | 21. Peer Review Process (cont). 22. Project consultation- peer and instructor feedback | 11/19- Comments for Authors* (*Beginning of class) |
| 11/24/15 11/26/15 | HOLIDAY WEEK- NO CLASS | Complete presentation materials & final manuscript, etc. or relax and enjoy the break if you have already done so! |
| 12/1/15 12/3/15 | 23. Student Presentations: Format TBD based on student project selections 24. Student Presentations: OPTION A- Laboratory Meeting | By 12/1- Contribute to 5 ethical cases online for group discussion after presentations. 12/3-  Notebook Review #3 |
| 12/8/15 12/10/15 | 25. Student Presentations: OPTION B- Poster Session 26. Student Presentations: OPTION C- Scientific Meeting | |
| | FINALS WEEK | Final manuscript and response to reviewers due to Dr. Brannick by: <u>5:00 pm on Monday, Dec. 14th</u> |

STUDENT CONTRACT OF APPROPRIATE CONDUCT

Please return completed page to the instructor by the 2nd week of class. The student code of conduct can be found at:

<http://www.udel.edu/stuguide/15-16/code.html>

I have read the Applied Biomedical Communication course syllabus and the University of Delaware's student code of conduct and agree to adhere to standards of appropriate academic and personal conduct as outlined therein throughout the course.

Student name (printed) _____

Student signature _____ Date _____