

Scientific Communication Techniques
MEES 602
Fall 2004; 1 credit

Instructor: Andrew S. Kane, Ph.D.
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SYLLABUS

I. DESCRIPTION

Course name: Scientific Communication Techniques

Course description: Graduate level overview of techniques for platform, poster and written scientific presentations. Emphasis will be on oral presentation delivery, proposal development, content organization and audience perspective. The course consists of lectures, student presentations and constructive critiques that takes place intensively over the 5-6 week course period.

Course number: MEES 602

II. OBJECTIVES: This course will provide students with inspiration and a conceptualized framework from which to develop well-organized, meaningful scientific presentations. Having successfully completed this course, students will be able to:

- Discuss the mission of making scientific presentations;
- Formulate effective platform, poster and proposal presentations;
- Generate appropriate presentation media elements;
- Constructively critique scientific presentations;
- Draft a scientific proposal; and
- Deliver informal and formal scientific presentations;

III. JUSTIFICATION:

Development of new instrumentation, medicines and technologies is dependent on rigorous scientific methods and research efforts. However, science in a vacuum is meaningless. It is critical for graduate students, post-doctoral students and other professionals-in-training to be able to communicate their science to a variety of audiences. Although communication techniques should be a part of all courses taught, there is a need for a specific module to focus on the different scientific presentation formats (i.e., oral, poster, written). The need to communicate science is seen in many facets of professional scientists: communicating at scientific meetings, writing manuscripts for professional journals, drafting resumes, interviewing, and sharing techniques with colleagues. This course will build students' communication proficiency by focusing on organizational skills, confidence building, application of appropriate techniques and technology, and providing actual presentation "flight time."

For graduate credit

This course will be available for graduate credit at UMCP. The course provides professional training skills relative to communication and outreach techniques that are not traditionally covered in graduate school curricula.

IV. PREREQUISITES AND COREQUISITES:

Current graduate standing and permission of the instructor, Dr. Kane.

V. TEXTS AND SPECIEAL TEACHING AIDS

No special text will be required for the course. However, recommended texts will be suggested and additional materials will be duplicated for course participants.

Recommended readings:

Strunk, W. and White, E.B. 1979. Elements of Style. Revised 4th Edition. MacMillan, NY.

Ries, Al and Jack Trout. 1986. Positioning: The Battle for Your Mind. Warner Books, NY.

Tufte, Edward R. 1983. The Visual Display of Quantitative Information. Graphics Press, Cheshire, CT.

VI. SYLLABUS

- Organizing presentation elements; knowing the audience's needs; integrating data, showing relationships and causality (25%)
- Creating effective media elements; use of software products to enrich presentations (10%)
- Developing poster presentations; informal and spontaneous communications (10%)
- Developing, constructing, organizing and presenting a scientific research proposal (20%)
- Developing, constructing, organizing and presenting an oral scientific presentation; leadership principles (25%)
- Constructive critique of student presentations (10%)

Location: Conference Room at 8075 Greenmead Drive (Avrum Gudelsky Veterinary Medicine Building), UMCP. The conference room is immediately on the left after entering the main building door. For directions online go to <http://aquaticpath.umd.edu/directions>. Park anywhere in front of building (free, no pass required). Note that other rooms may be used during this course; information on room changes will be made either during class or through class email contact.

VII. OTHER

Clothing, special equipment

Appropriate dress for making presentations in an informal setting.

Grading Policies and Standards

Grades will be based on attendance (10%), level of participation (20%), and assigned presentations (70%). There will be no examinations. The grading scale used is listed in the Student Handbook.

Attendance Policy

Attendance at all classes is required.

Disabilities, Professionalism, Academic Misconduct, Honor Code, Drop/Add Policy

Refer to Student Handbook.