

**SYLLABUS
SEMINAR
(ESS 503/603)**

Presentations and discussions by faculty, guest speakers, and graduate students on current topics in the areas of environmental soil science, soil science, biosystems engineering, and biosystems engineering technology. This course may be repeated a maximum of three times and meets at 2:30-3:20 Friday in Room 266 of the Biosystems Engineering and Soil Science Bldg.

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Course Description and Objectives: The oral dissemination and defense of scientific and engineering concepts is a fundamental communication tool that you will employ throughout your professional career. In this course, you will participate in five activities that will hone your oral presentation skills: observation, question, critique, research, and presentation.

Observation: One of the most effective means of gaining an appreciation for the art of presentation is to observe the performance of others. The mannerisms and appearance, the voice, and the visual aids employed by a speaker may be viewed in light of what works and what doesn't. You learn by example.

Question: The formulation of relevant questions that probe a speaker's knowledge, experimental methods, assumptions, and interpretations is an important part of any presentation, and of the scientific method.

Critique: The critique offers the opportunity for observers to indicate to the presenter (1) areas within the presentation that were well-done, and (2) areas within the presentation that could be improved upon.

Research: It is an expectation and goal of the BESS faculty that this seminar series will be a forum for our students and faculty to dispense and gain insight into the current and cutting-edge activities in biosystems engineering, biosystems engineering technology, and the environmental and soil sciences. To meet these expectations, you will be required to research a current topic (active departmental research, research proposal, defense of research activities), distill from your research the salient points, write an abstract that relates a general synopsis of your finding and provides advertisement for your presentation, and develop a presentation around your research findings.

Presentation: Public speaking is not normally a pleasant experience, particularly for those who are new to the activity; but, it can become so. To attain confidence and comfort on the podium requires practice. Your graduate education requirements allow you the opportunity to practice within the friendly confines of the department, observed by the faculty and your peers. You will be responsible for developing and delivering a seminar presentation on a topic that is within one of the discipline areas in the department (BsE, BsET, or ESS). In general, you are expected to create and deliver a PowerPoint presentation in the following seminar topics:

- If this is your **first** departmental seminar presentation, you will present on an active area of research that is currently under investigation by your major professor or one of your

committee members. The topic may be of particular interest to you (e.g., a potential Thesis topic), or may be in an area that is alien to you. However, the presentation must report on active, cutting edge research; **this is not a proposal presentation**. It is expected that this presentation will last 12 to 15 minutes, followed by a short time for questions from the audience. This is more or less the standard period of time allotted for presentations at scientific meetings. Students enrolled in 603 may present their Master's Thesis.

- In your **second** seminar you will present your proposal for Thesis or Dissertation research. The length of your presentation will be 15 to 20 minutes, followed by a 5 minute period for questions.
- Your **final** seminar will consist of your Thesis or Dissertation defense. The length of your presentation will be 20 to 25 minutes, followed by a 10 minute period for questions.

You are strongly encouraged to use your major professor, your committee members, and other students to aid in the development and polish of your presentations.

Notable Milestone: The scheduling of seminars and the timely dissemination of a seminar schedule are activities that must be completed within the first few weeks of the semester. Before the second class meeting, all students must submit a seminar title (by e-mail to Drs. Essington and Yoder). The seminar schedule will then be created and released to the university community.

Expectations and Grades: You will be evaluated according to your participation in discussions, your critique of fellow students, your written abstract, your presentation, and your ability to perform the course expectations in a professional and prompt manner. There are 100 points possible, and letter grades will be assigned according to the standard 90%, 80%, 70%, etc. split.

Participation in Discussions: You are expected to ask competent and probing questions of speakers.

Critique: Following each presentation, you will fill out a critique form which addresses a number of points associated with the presentation. Each presenter will also be responsible for a self-critique after viewing a video of their presentation. The completed critiques must be submitted to Dr. Yoder as e-mail attachments, due no later than 5 pm the following Monday (20 points for all critiques combined).

Abstract: An abstract shall be submitted to Dr. Essington as an e-mail attachment, no later than 5 pm on the Friday before the scheduled presentation date. The abstract should be 200 to 250 words in length and provide a brief but informative synopsis of your presentation. The abstract should consist of (1) a rationale or justification for the study, (2) an objectives statement, (3) a brief account of the methodologies employed, (4) the results, and (5) the conclusions which emphasize the significance of the work, including any new theories, interpretations, evaluations, or applications (10 points).

Review: You are expected to work closely with your major professor in the development of a professional scientific presentation. Your presentation (PowerPoint slides) shall be reviewed by a faculty mentor (major professor, committee member, or Drs. Essington or Yoder). The reviewer shall submit an e-mail to Drs. Essington and Yoder indicating that the presentation (1) was reviewed and (2) is acceptable, on or before the Thursday before the scheduled presentation date. If your presentation is not approved by a faculty mentor, you will not be allowed to present.

Presentation: You will receive a critique and grade from the faculty for your presentation (60 points). Your presentation grade will be based on the following points:

- a) Appearance, mannerism, voice, and address
- b) Quality of visual aids

- c) Content and knowledge of topic
- d) Timing
 - i) **Exceeding the time limits indicated above will result in an automatic letter reduction in seminar grade**
 - ii) Finishing your presentation in less than the minimum time will be taken as a poor use of resources and will result in a lower presentation score
- e) Response to questions

You should become familiar with the operation of computer and projector in Rm. 266 before the date of your presentation.

Faculty Critique Conference: Each student shall schedule a conference with Dr. Essington to occur during the week following his or her presentation (after noon Tuesday and before noon Friday). During this time, faculty and student critiques will be shared and feed-back will be offered relative to the areas within the presentation that were well-done and areas within the presentation that could be improved upon. Failure to schedule a conference during the week following the presentation will result in a 10 point reduction in the course grade (10 points).

Attendance: Expected.

Student Committees: In addition to performing the required presentations and associated activities, as described above, each of you will participate in one of the following subcommittees for the duration of the semester (performance in this area will be reflected in the *Presentation* grade):

- a) ***Advertisement:*** Disperse/Post flyers and other seminar advertisement materials throughout the campus. **Abstracts containing proprietary or patent information must not be posted on the internet, as this constitutes prior publication;** post only the seminar title and speaker.
- b) ***Snacks:*** Responsible for purchasing of snacks (with Departmental funds) for each seminar and the setup and cleanup of the snacks table.
- c) ***Moderator:*** Introduce the speaker (by delivery a short biography) and the seminar topic, as well as any other announcements that may be of general interest to the audience. Other responsibilities include time management (monitoring speakers' times) and moderating the question/answer period.

Professionalism: All students enrolled in this course are graduate students (apprentices) in a chosen field of study. As such, you are considered to be professionals. You are expected to conduct yourselves in a professional manner by meeting all course expectations (deadlines) as required and without the need for constant reminder.

Make-up Policy: There are no make-ups, short of extraordinary circumstances. You are to treat your presentation and its scheduling, and the presentations of others, as professional responsibilities.

A grade of "I" (incomplete) will only be assigned under extraordinary circumstances. The central objective of this course is the delivery of a high-quality and informative professional presentation. Although the second and final presentations are identified as proposal and defense presentations, these are only loose associations. Failure of a student to achieve the expected completion of a Research Proposal, Thesis, or Dissertation (which are extracurricular activities relative to the expectations of this course) is not considered an extraordinary circumstance. If the delay in completing the Proposal or Thesis (Dissertation) is deemed by the student to potentially severely hamper the quality of a

presentation, then it is recommended that the student withdraw from the course, and re-enroll during a later semester. If a grade of “I” is justifiably assigned, all other expectations of the course (participation, critiques, attendance, and committee assignments) must still be performed. However, the presentation will be delivered in a later semester, and the “I” grade will subsequently be removed.