

DEVELOPING AND EVALUATING WRITING ASSIGNMENTS FOR TECHNICAL COURSES

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***Abstract**--This panel presentation focuses on designing and evaluating writing assignments for technical courses. Because of influential changes in engineering education, many engineering educators are attempting to incorporate writing assignments into their technical courses. While these writing tasks cover a wide variety of genres and products, they can prove frustrating to the professor because of the time it take to evaluate writing, the quality of student writing, and the lack of integration between writing and technical content. The session places particular emphasis on writing good assignments, using peer review to develop sound revision practices, and employing efficient and effective evaluation strategies. The session presenters analyze the common pitfalls experienced when writing enters the technical classroom. As a strategy for avoiding these problems, the presenters explain the use of peer review as a way to help students develop sound revisions practices. Finally, the session offers guidelines for making evaluations that are effective for both student and professor. Samples of successful assignments are used to demonstrate the application of the principles discussed.*

Of all the transformations in engineering curricula that have occurred recently, perhaps none has impacted engineering educators as directly and significantly as the emphasis on students' communication skills. This important shift has resulted from three influential forces. First, the adoption of ABET's EC 2000 brought new attention to the importance of communication skills as a measurable student outcome; in order to measure up, students must have multiple opportunities to develop their skills, not merely one course. Second, industry has demanded that students arrive on the job with effective communication skills. Third, researchers in engineering and composition pedagogy recognize that students learn to be more effective communicators if they develop those skills within the context of their particular discipline [1].

As a result, many engineering educators are attempting to develop and incorporate writing assignments into their technical courses. The problems associated with designing, assigning, and evaluating writing, however, often discourage engineering faculty doing so. In particular, without training in writing pedagogy, engineering faculty frequently grow annoyed with the quality of writing students produce, the time it takes to evaluate writing, and the lack of integration

between the writing assignment and the technical content of the course.

The purpose of this session is to analyze the common pitfalls engineering educators experience when they bring writing into a technical course. The session presenters then offer three primary strategies that can help faculty avoid these pitfalls and successfully integrate writing into the course content. First, the session presenters explain ways to develop good assignments that will encourage good student writing. Often the assignment may be unclear to the student and thus may encourage poor writing. Second, the presenters demonstrate the principles of Peer Review; when students are given the opportunity to review the writing of other students in the course, they learn how others have solved the writing problems posed by the assignment, and they generally improve their own writing in the process. Third, the session focuses on reducing the time it takes for a faculty member to evaluate writing. The presenters believe that making evaluation efficient can reduce the load that assigning writing makes on the instructor. Samples of effective assignments, as well as samples of student writing, are included in the discussion.

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