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Introducing Ethics to Civil and Environmental Engineering Freshmen

As part of our effort to introduce engineering ethics across the civil and environmental engineering curriculum at the University of Massachusetts, I was invited by the course instructor, Dr Paula Rees, of our freshmen required course ENG 111, Introduction to Civil and Environmental Engineering, to present two 75 minute lectures. There were two sections of students with an enrollment of about 25 in each section. In my first presentation I differentiated between ethics, morality, and the law. I gave several examples of conduct (or misconduct) and the students participated in a class discussion with the objective of identifying conduct covered by the law, morality, or ethics. I then informed them of the American Society of Civil Engineers Code of Ethics and gave them copies of the code of ethics downloaded from www.asce.org (Professional Issues/Ethics/Resources/Ethics, Standards of Professional Conduct (21pp)). I gave them the code only (pp 13-18) and asked that they download the entire publication themselves so that they would be familiar with the ASCE website which contains much valuable, free information for students. We reviewed the code in class, and I was pleased that the students picked up on the fundamental principles and canons and recognized that an engineers' code would be different from other professions e.g. the law.

In my second meeting with the classes we reviewed the code of ethics in some detail and discussed how the code could apply to them if we substituted the words "engineering student" for "engineer." We then viewed The Truesteel Affair and discussed the plight of Robert Williams. The students differentiated between immoral, illegal, and unethical conduct as we discussed the behavior of the principal characters who were engineers and non-engineers.

I was very pleased with my interaction with our prospective freshmen. I think this was an excellent way of making them aware of ethics and how we intend to address ethics in our civil and environmental curriculum.