

Instructor's Guide
Lesson #2
Developing an Engineering Code of Ethics

- 1) At the end of the previous class,
 - a) Pass out assignment sheet shown on p. 2 (file "code.doc").
 - b) Mention that the homework assignment is for each group of students to develop a code of professional ethics. Emphasize that the students are NOT to read any professional organization's codes prior to doing their work; rather they are to develop their own codes based on the Session 1 case study (concerning societal issues and the overall need for a code of ethics) and their own academic and personal experiences (concerning interpersonal issues).
 - c) Mention that each group will turn in their code at the beginning of the next class and that each student in the group needs to make a copy of their code to keep during discussions.
- 2) At the beginning of class collect each group's code of professional ethics.
- 3) For the next 25 minutes, work with the entire class to develop a class-wide code of professional ethics. Ask students for their contributions (from their group's codes) and develop a consensus. Suggestions on how to conduct this portion of the lesson are given on p. 3-4.
- 4) Pass out codes of ethics from two professional organizations related to your student's discipline. See pp. 6-9 for suggested codes. Have students read the codes and during the next 5 - 10 minutes critique both the professional codes and the class' consensus code.
- 5) In the final 10 minutes of class, mention that the codes are subject to interpretation and that the students may need help resolving any future ethical conflicts. Such help is available in the form of professional hotlines. Pass out the list of ethical resources and hotline given on p. 5. If you are not an EE and your professional organization has a hotline, substitute it for the IEEE hotline.

Developing a Code of Professional Ethics

Pre-class preparation:

- I. As a group, develop a professional code of ethics. Develop your code based on lessons learned from the Pinto case study (concerning societal issues and the overall need for a code of ethics) and from your own academic and personal experiences (concerning interpersonal issues). Do NOT read any professional organization's code prior to developing your own. (Don't worry, your codes will not be graded based on how many issues a professional organization remembered but that your group did not.)**
- II. Make sufficient copies of your code so that you can turn in one copy and still have a copy for each member of your group.**

In class you will use your group codes to develop a single, class-wide code of professional ethics.

Teachers Discussion Guide to Developing Code of Professional Ethics

Key points in study:

- 1) The main theme of a professional code of ethics is that an engineer has professional responsibilities. These responsibilities can be divided into four groups:
 - a) Responsibilities to society
 - b) Responsibilities to an employer
 - c) Responsibilities to fellow workers
 - d) Responsibilities to self
- 2) Ethical problems arise when there are conflicts between responsibilities in two or more of the above groups.
- 3) A good code of professional ethics will enumerate the professional responsibilities discussed in item 1 and give guidelines for resolving conflicts discussed in item 2.
- 4) When an ethical code does not provide sufficient guidance, you can discuss issues with your peers and also make use of professional resources such as web pages and ethics hotlines.

Guidelines for discussion:

Tell the class that you will spend the next half hour developing a class-wide code of professional ethics. Ask the class what items should be in the code. Using a large blackboard, write down the suggestions you receive from the students. ***The key is for you to place the suggestions into one of four physical areas of the blackboard (one for responsibilities to society, one for responsibilities to an employer, one for responsibilities to fellow workers, and one for responsibilities to self).*** Do not write titles on these areas of the blackboard, and do not tell the students what these four areas of the blackboard mean - if possible, do not draw attention to the fact that you are using different areas. Refine and consolidate the items on the blackboard as suggested by the students. After you have sufficient input, ask the class “do you see some common themes among the items you’ve suggested?” Do you see any ways to organize the items you’ve suggested?” After discussion, mention the four responsibilities and refine the class-wide code, leaving it on the board.

Now pass out two codes of ethics related to your profession (see pp. 6-10 for URLs for various codes — you will need to obtain copies of the codes you want to use - for example, for electrical engineers I plan to use IEEE and the National Society of Professional Engineers). Ask class to critique these codes and compare them to the code the class has developed. Be sure to stress the common points among the codes and also to note that each code will have its strong points. Be sure to mention how the students can find copies of these codes later on. Conclude the class by mentioning again the four sometimes-conflicting responsibilities of an engineer. Mention that the existing professional ethics codes are excellent guides for most cases, but they will not cover all possible situations. Mention that existing resources, such as ethics web pages and hotlines, exist for these situations and that students can pursue these and other additional resources if the problem appears novel, beyond the grasp of the individual, or if the individual desires corroboration. Pass out list of ethics web pages and hotlines shown on page 5. Note - if you are not an EE and if your professional organization has its own hotline,

substitute that hotline for the IEEE hotline on p. 5. More information on the IEEE hotline is attached on pp. 11-12.

Additional Resources Available for Ethical Issues

Web pages:

1. <http://www.ieee.org/organizations/committee/ethics/ec-resources.html>
2. <http://onlineethics.org>

Hotline:

Information concerning the IEEE hotline is shown on the web page

<http://www.spectrum.ieee.org/INST/aug96/ethics.html>

You can contact the hotline via telephone at 1-908-562-6590 or e-mail

ethics@ieee.org