IE 380
The Responsible Engineer
Discussion Questions for
Chapter 1, Ethics and Professionalism

Martin, M.W. & R. Schinzinger. *Ethics in Engineering*, fourth edition. Boston: McGraw Hill, 2005.

Answer the following questions. Questions in **boldface** are required. Others are optional, but you might be called upon in class to answer them and you might need to know the answers for an exam! NB: The reprint of our textbook has two page numbers on each page, the reprint version's number in the upper outside corner and the original version's number below it. Page number references in the questions below and all subsequent Discussion Questions will be to those of the original.

1. **Why are you taking this course?** Assuming that this course is capable of producing its stated learning outcomes (see syllabus), why *should* engineering students take it? Why should a non-engineering student take it?

2. **Define *ethics*.**

3. Some would say that engineering is value-neutral, others that it is value-laden. What is your opinion? Explain.

4. What is a moral value?

5. **What is an ethical principle (moral principle)?**

6. What might it mean to take a "moral point of view"?

7. Why study engineering ethics?

8. **What are your personal ethical principles?** How did you arrive at them? To what extent do you *consciously* apply them in everyday life?

9. What would it mean to justify a moral principle? Justify your personal moral principles.

10. **Define the following in your own words:**

    • **moral responsibility (the trait, not a specific responsibility)**

    • **<u>a</u> responsibility (i.e., a specific responsibility)**

    • **a responsible engineer**

11. **What is a moral (ethical) dilemma?**

12. **Put yourself in Mr. LeMessurier's place. *Should* you, having identified the problem in the Citicorp building, have immediately notified occupants and neighbors of the building? Why or why not?** See section 1.2.1 and Discussion Question 1 on p. 20. In answering this question, you may want to a) identify a relevant personal moral principle, b) apply the principle to this situation, then c) answer the question based on your reasoning.

13. How could – or did – a *silo mentality* contribute to an ethical problem in engineering?

14. Why do the authors of our text consider engineering a *profession*?

15. Apply stakeholder theory to a manufacturing company: to whom does the manufacturer have responsibility?