

TABLE OF CONTENTS

Part 1: Ethics for Engineers.....	1
Chapter 1: The History of Engineering Ethics.....	3
Introduction.....	3
What Should Peter Do?	4
What is the ethical dilemma? What are the first	
3 steps the engineer should take?	5
Importance of Ethical Know-How	6
Learning Objectives	7
What objectives would you personally like to achieve	
upon completion of this section?	7
Book Outline.....	8
What Has Helped Shape Engineering Ethics?	8
Which of the following events and phenomena have	
helped shape engineering ethics?	8
The History of Engineering Ethics.....	9
In the nineteenth century... ..	9
Around the turn of the twentieth century	10
The US model.....	11
What Do You Think or Recall?	12
What do you think or recall is covered in the code of	
conduct for engineers, originated in 1946?	12
The Code of Conduct for Engineers.....	13
The fundamental canons of the code of conduct for	
engineers state that engineers shall.....	13

Chapter 2: The Shape of Engineering Ethics 15

- Introduction..... 15
 - What does the research show? 15
 - Make note of the websites you feel provide the most relevant or up-to-date guidelines. You may already be familiar with some websites. If you are, navigate to those sites and review the ethical information presented 16
- Current Engineering Ethics 16
 - A few online resources 16
 - Other online resources 17
 - Your ethical values 18
 - Potential influences on our ethical values 18
 - There are more potential influences on our ethical values 20

Chapter 3: Ethical Concerns..... 23

- Introduction..... 23
 - Project 1..... 23
 - What about this project? 23
 - Questions to consider 24
 - Project 2..... 24
 - What about this project? 24
 - Questions to consider 24
- Ethical Concerns for Engineers 25
 - Take a few moments to consider your thoughts 25
 - Here are reasons why ethics are of a special concern to the engineering profession 25
 - Why might a company adopt a code of ethics? 26
 - Consider 27
- Company Code of Ethics 27
 - Why do companies adopt a code of ethics?..... 27
 - What might a company code of ethics cover? 28
 - See the links below the following logos to see the codes of ethics that these organizations have created and published..... 29

Chapter 4: Factors Influencing Ethical Values	31
Introduction.....	31
Your engineering projects	31
Engineering projects.....	32
Ethical Issues Outside of Work.....	33
Ethical Issues in the Workplace.....	35
How can ethical values change?.....	35
Chapter 5: Solving Ethical Problems	39
Process for solving ethical problems.....	40
Part 2: Changing Organizational Culture	51
Chapter 6: Explain Change and Identify the Motivation Behind an Upcoming Change	53
Explain “change” and identify the motivation behind and upcoming change.....	55
Change management: engineer vs. psychologist.....	57
Change Scenario 1: Shane Manufacturing	58
What factors made this stressful for Shane’s leadership?	60
Chapter 7: Create a Vision for the Future Culture.....	73
Write a vision statement for your own company	77
Chapter 8: Determine How Change Will Impact Processes and People.....	81
Process Improvement.....	82
How do you do define process? How do you define improvement?	82
Case Study	84
What is the main process improvement, which resulted from the implementation of the new software?.....	86
Stakeholder Analysis	86
Assessing Change Impact	89
Chapter 9: Identify Employee Development Needs.....	93
Assessing Organizational Readiness	94
Sample Organizational Readiness Chart.....	95

Change Readiness Scorecard 95
Organizational Readiness Report..... 96
Chapter 10: Write a Plan for Mobilizing an Organization101
Here is a Sample Project Plan Review Its Components.... 103
Ingredients for Successful Change 103