

# TABLE OF CONTENTS

FOREWARD

PREFACE

## 1. INTRODUCTION TO ETHICAL CONFLICTS

|   |      |
|---|------|
| Cheating.....                                     | 1-1  |
| Plagiarism.....                                   | 1-5  |
| Resume Padding .....                              | 1-9  |
| Falsification of Data .....                       | 1-12 |
| General Characteristics of Unethical Conduct..... | 1-15 |
| Observations and Implications .....               | 1-16 |

## 2. VALUES AND VALUE SYSTEMS

|   |      |
|---|------|
| Case Studies .....                                | 2-1  |
| Definition of Values.....                         | 2-4  |
| Professional Values.....                          | 2-5  |
| Values in Professional Interactions.....          | 2-8  |
| Value Systems.....                                | 2-11 |
| Value Decision Making .....                       | 2-14 |
| Observations and Implications .....               | 2-15 |
| APPENDIX 2A: Definitions for Selected Values..... | 2-17 |

## 3. PROFESSIONALISM

|   |      |
|---|------|
| Case Studies .....                                  | 3-1  |
| Characteristics of a Professional.....              | 3-5  |
| Professional Culture .....                          | 3-7  |
| Professional Societies .....                        | 3-9  |
| Professional Interactions: A Value Perspective..... | 3-10 |
| Stages of Professional Conduct Development .....    | 3-13 |
| Observations and Implications .....                 | 3-16 |

#### 4. PROFESSIONAL CODES OF ETHICS

|  |      |
|--|------|
| Case Studies .....                                     | 4-1  |
| Causes of Unethical Conduct.....                       | 4-6  |
| Codes of Conduct and Professional Responsibility ..... | 4-7  |
| Objectives of a Code of Conduct.....                   | 4-8  |
| Motivation for a Code of Conduct.....                  | 4-10 |
| The Structure of a Code of Conduct.....                | 4-11 |
| Observations and Implications .....                    | 4-14 |

#### 5. RESOLVING ETHICAL DILEMMAS

|   |      |
|---|------|
| Case Studies .....                        | 5-1  |
| Observations from Case Studies.....       | 5-5  |
| Characteristics of Ethical Dilemmas ..... | 5-6  |
| The IPP Way.....                          | 5-8  |
| The IPP Way: Identify.....                | 5-8  |
| The IPP Way: Plan.....                    | 5-12 |
| The IPP Way: Practice.....                | 5-13 |
| Rationalization.....                      | 5-16 |
| Whistleblowing .....                      | 5-19 |
| Observations and Implications .....       | 5-22 |

#### 6. ENVIRONMENTAL ETHICS

|   |      |
|---|------|
| Case Studies .....                                      | 6-1  |
| Business, the Environment, and Ethics.....              | 6-5  |
| Values and the Environment.....                         | 6-6  |
| The Role of Engineering in Environmental Concerns ..... | 6-7  |
| Codes of Ethics and the Environment .....               | 6-8  |
| Sustainable Development .....                           | 6-9  |
| Other Issues in Environmental Ethics .....              | 6-11 |
| Observations and Implications .....                     | 6-13 |

#### 7. THE FPP VIDEOTAPE: TESTING WATER...AND ETHICS

|  |      |
|--|------|
| Introduction.....                              | 7-1  |
| Value Issues.....                              | 7-2  |
| Societal Context of Professional Practice..... | 7-7  |
| Ethics-Legality Conflict.....                  | 7-8  |
| Business vs. Ethics .....                      | 7-8  |
| The Role of Codes of Ethics.....               | 7-9  |
| Ethical Decision Making .....                  | 7-10 |
| Environmental Values.....                      | 7-13 |
| Observations and Implications .....            | 7-14 |

**8. FRAUD IN PROFESSIONAL PRACTICE**

|                                     |     |
|-------------------------------------|-----|
| Definition of Fraud .....           | 8-1 |
| Underbidding .....                  | 8-2 |
| Dual Submission.....                | 8-4 |
| Proposal Padding.....               | 8-6 |
| Falsifying Data .....               | 8-8 |
| Preventing Fraud.....               | 8-9 |
| Observations and Implications ..... | 8-9 |

**9. COMPUTER ETHICS**

|                                       |      |
|---------------------------------------|------|
| Value and Ethical Issues .....        | 9-1  |
| Case Study Analysis .....             | 9-2  |
| Software Piracy.....                  | 9-8  |
| Computer Privacy.....                 | 9-9  |
| Other Issues in Computer Ethics ..... | 9-11 |
| Observations and Implications .....   | 9-12 |

**10. RISK AND ETHICS**

|                                       |       |
|---------------------------------------|-------|
| Case Studies .....                    | 10-1  |
| A Quiz on Risk .....                  | 10-5  |
| Definitions .....                     | 10-6  |
| Risk and Values.....                  | 10-8  |
| Origins of Risk in Engineering.....   | 10-10 |
| Risk and Decision Making.....         | 10-12 |
| Additional Topics for Discussion..... | 10-14 |

**11. CONFLICT OF INTEREST**

|  |      |
|--|------|
| Case Studies .....                             | 11-1 |
| Definitions .....                              | 11-1 |
| Value Issues in Conflicts of Interest.....     | 11-3 |
| Resolution of Conflicts of Interest.....       | 11-5 |
| Additional Case Studies .....                  | 11-7 |
| Codes of Ethics and Conflicts of Interest..... | 11-1 |
| Company Policies.....                          | 11-1 |
| Avoiding Conflicts of Interest.....            | 11-3 |
| Confidentiality .....                          | 11-5 |
| Observations and Implications .....            | 11-7 |

APPENDIX A: Bibliography on Ethics Instruction .....A-1

APPENDIX B: NSPE Code of Ethics.....B-1