

* = *Principles of Effective Writing*

Electronic Reserves: <http://www.library.uiuc.edu/ereserves/>

Class #1 **Tu 8/26** **Introduction, Course Overview, *Gilbane Gold***

Class #2 **Th 8/28** **Moral Theory: Concepts and Cases**

Pritchard and Holtzapple, "Responsible Engineering: *Gilbane Gold* Revisited," 217-230

Grahm, "Palchinsky's Travels," 23-31

Fleming, "Engineers of Death," 19

Class #3 **Tu 9/2** **Engineering as a Profession**

Engineering Ethics, Chapter One: "Why Professional Ethics?," 1-21

Greenwood, "Attributes of a Profession," 67-77

Time Investigation: The V-2, 36-37, 39-40, 42,44

Class #4 **Th 9/4** **The Moral Responsibility of Engineers**

Engineering Ethics, Chapter Two, "Responsibility in Engineering," 22-46

Alpern, "Moral Responsibility for Engineers," 187-95

Class #5 **Tu 9/9** **The History of Engineering and Professional Codes of Ethics
Personal Mission Statement Due**

Dunwoody, et al., *Fundamental Competencies for Engineers*, 9-13

Davis, "A History of Engineering in the United States," 18-30

Gotterbarn, Miller, and Rogerson, "Software Engineering Code of Ethics," 102-7

IEEE and NSPE Codes of Ethics

Class #6 **Th 9/11** **The Discipline of Philosophy:
Epistemology, Metaphysics, and Ethics
Ethical Theories: Teleological and Deontological Perspectives
Draft of Response Paper #1**

Engineering Ethics, Chapter Three: "Framing the Problem," 47-70

Class #7 **Tu 9/16** **Tools and Methods of Case Study Analysis**

Engineering Ethics, Chapter Four, "Resolving Problems," 71-89

**Class #8 Th 9/18 Communication and Writing Skills
Draft of Response Paper #2 Due**

* Williams, "The Grammar of Clarity," 7-32, 204-21

Tolkien, *Lord of the Rings*, Part I, Book Two, "The Bridge of Khazad-Dum," 3, 335-46

Class #9 Tu 9/23 Work, Responsibility, and Human Personhood

* "Cohesion, Coherence, and Concision"

Covey, "Principles of Personal Vision," 66-80

Tolkien, *Lord of the Rings*, Part I, Book Two, "The Breaking of the Fellowship," 411-23

**Class #10 Th 9/25 The Scientific Method and the Tests of Truth
The Principles of *Contradiction* and *Causality*
Final Version of Response Paper #1**

Sandage, "Cosmology," 321-34

The Principle of *Contradiction*: Aristotle, *Metaphysics*, Book IV, 1-8 [1003a-1012b]

The Principle of *Causality*: Aristotle, *Posterior Analytics*, I 1-2 [71a-72b];
and the *Metaphysics*, Book V, 1-2 [1012b-1013b]

Adler, *Aristotle*, 39-46

**Class #11 Tu 9/30 Normative Ethical Naturalism
Aristotle, Darwin, and Nietzsche**

Aristotle, *Nicomachean Ethics*, Book I [1094-1103]

White, "Preface," and "The Pursuit of Happiness," xi-xii, 3-11

[For further study of other perspectives on *Ethical Naturalism*, see Darwin, *The Descent of Man*; Nietzsche, *On the Genealogy of Morality*; and Spinoza, *Ethics*.]

**Class #12 Th 10/2 The Structure of Aristotelian Ethics
Final Version of Response Paper #2 Due**

Aristotle, *Nicomachean Ethics*, Book II [1103-1109]

White, "The Pursuit of Happiness," 12-21

**Class #13 Tu 10/7 Normative Ethical Idealism
Plato, Kant, and Hegel**

Kant, *Grounding for the Metaphysics of Morals*, "Transition from the Ordinary Rational Knowledge of Morality to the Philosophical" [393-405]

Paton, "The Good Will," 34-37, 44-45, "Duty," 46-55

[For further study of other perspectives on *Ethical Idealism*, see Plato, *The Republic*; Hegel, *The Phenomenology of Spirit*; Schwartz, *The World of Thought in Ancient China*; Raju, *The Philosophical Traditions of India*; and Hackett, *Oriental Philosophy*.

**Class #14 Th 10/9 The Structure of Kantian Ethics
Research Topic Due**

Kant, *Grounding for the Metaphysics of Morals*, "Transition from Popular Moral Philosophy to a Metaphysics of Morals" [406–45]; "Transition from a Metaphysics of Morals to a Critique of Pure Practical Reason" [446–47]
Paton, "The Maxim of Morality," 58–62, "The Law," 69–73
Turabian, *A Manual for Writers*, Part I, 12–23

**Class #15 Tu 10/14 Normative Ethical Theism
Augustine, Aquinas, and Luther**

Aquinas, *Summa Theologiae*, Question #2 [5–17], #5 [61–81], #6 [83–93]
Genesis 1:1–31
[Turabian, *A Manual for Writers*, Part I, 24–47]

[For other perspectives on *Ethical Theism*, see the *Talmud* and the *Koran*.]

**Class #16 Th 10/16 The Structure of Biblical Theism
Research Paper Bibliography Due**

Selected Texts of the Biblical Narrative
[Turabian, *A Manual for Writers*, Part II, 131–280, *Chicago Manual of Style* citation format; focus attention on chapters 16–17, dealing with "Notes" and "Bibliographies"]

**Class #17 Tu 10/21 The Engineer and Society
Draft of Response Paper #3 Due**

Bellah, et al., *Habits of the Heart*, "Preface," vii–viii
Alexis de Tocqueville, *Democracy in America*, 27–35, 39
Martin and Schinzinger, "Engineering as Social Experimentation," 88–106

**Class #18 Th 10/23 Technology and Society
Research Paper Plan and Outline Due
Chicago Manual of Style Citation Format**

Engineering Ethics, Chapter 5, "The Social and Value Dimensions of Technology," 90–114
[Turabian, *A Manual for Writers*, Part I, 48–70]

Class #19 Tu 10/28 Fiduciary Relationships and Conflicts of Interest

Engineering Ethics, Chapter 6: "Trust and Reliability," 115-34
 Bayles, "Obligations between Clients and Professionals"
 * Williams, "Sustaining the Longer Sentence," 79-105, 205-17

**Class #20 Th 10/30 The Frontiers of Cyberspace
 Final Version of Response Paper #3 Due**

Spinello, *CyberEthics: Morality and Law in Cyberspace*, 1-10, 29-52

Class #21 Tu 11/4 The Engineer's Responsibility for Safety

Engineering Ethics, Chapter 7: "Risk and Liability in Engineering," 135-64
 Petroski, "Accidents Waiting to Happen," 85-97
 Martin and Schinzinger, "Dimensions of Engineering," 16-20

**Class #22 Th 11/6 Complete Draft of Research Paper Due
 Employee-Employer Relations
 Whistle-Blowing**

Engineering Ethics, Chapter 8: "Engineers in Organizations," 165-90
 De George, "Ethical Responsibilities of Engineers in Large Organizations," 175-86
 James, "Whistle-Blowing: Its Moral Justification," 263-78
 [Turabian, *A Manual for Writers*, Part I, 71-81]

**Class #23 Tu 11/11 The Challenger Case
 Columbia and the Challenger Case Revisited**

Bell and Esch, "The Fatal Flaw in Flight 51-L," 36-51
 Boisjoly, "... Moral Responsibility and the Working Engineer," 6-14
The CAIB Report: Columbia Accident Investigation Board, "History as Cause:
 Columbia and Challenger," 195-204 [for the full text of the report, see www.caib.us]

**Class #24 Th 11/13 Energy for the Future: The Grand Vision
 Engineers and the Environment
 Peer Review of Research Papers**

Engineering Ethics, Chapter 9: "Engineers and the Environment," 191-210
 * "Emphasis, Elegance, and Economy"

