

\* = *Principles of Effective Writing* [UIUC Main Library electronic reserves]

**Class #1      Th 8/23    Introduction, Course Overview, *Gilbane Gold***

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

*Engineering Ethics*, Chapter 1: "Engineering Ethics: Making a Difference," 1-20, 320-22  
Case 27-28: "Gilbane Gold I, II"  
Grahm, "Palchinsky's Travels," 23-31  
Fleming, "Engineers of Death," 19

**Class #3      Th 8/30    Engineering as a Profession**

Dunwoody, et al., *Fundamental Competencies for Engineers*, 9-13  
Greenwood, "Attributes of a Profession," 67-77  
Survey of Turabain, *A Manual for Writers*  
\* Williams, "The Grammar of Clarity," 7-32, 204-21

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

*Engineering Ethics*, Chapter 2: "Responsibility in Engineering," 21-47  
Alpern, "Moral Responsibility for Engineers," 187-95  
Ladd, "Collective and Individual Moral Responsibility in Engineering," 26-39

**Class #5      Th 9/6     The History of Engineering and Professional Codes of Ethics  
Draft of Response Paper #1 Due**

Davis, "A History of Engineering in the United States," 18-30  
Reynolds, "The Engineer in America," 1-2  
IEEE and NSPE Codes of Ethics  
\* "Cohesion, Coherence, and Concision"

**Class #6      Tu 9/11    Work, Responsibility, and Human Personhood  
Personal Mission Statement Due**

Covey, "Inside-Out" (15-24, 31-38), "Principles of Personal Vision" (66-80), "Principles of Personal Leadership" (98-111, 128-29), and "Principles of Personal Management" (149-56; survey of *First Things First*, "Appendix B," 322-41)

**Class #7      Th 9/13    Tools and Methods of Case Study Analysis  
Final Version of Response Paper #1**

*Engineering Ethics*, Chapter 3: "Framing the Problem," 48-76  
Tolkien, *Lord of the Rings*, "The Bridge of Khazad-Dum," 3, 335-46

**Class #8    Tu 9/18    Research Topic Due**  
**The Discipline of Philosophy:**  
**Epistemology, Metaphysics, and Ethics**  
**Ethical Theories: Teleological and Deontological Perspectives**

*Engineering Ethics*, Chapter 4: "Organizing Principles," 77-100  
Tolkien, *Lord of the Rings*, "The Breaking of the Fellowship," 411-23  
Turabian, *A Manual for Writers*, Part I, 12-23

**Class #9    Th 9/20    The Scientific Method and the Tests of Truth**  
**The Principles of Contradiction and Causality**  
**Draft of Response Paper #2**

Sandage, "Cosmology," 321-34  
[For further study, see Bodanis, *E=mc<sup>2</sup>: A Biography of the World's Most Famous Equation*]  
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]

**Class #10    Tu 9/25    Normative Ethical Naturalism**  
**Aristotle, Darwin, and Nietzsche**

Aristotle, *Nicomachean Ethics*, Book I [1094-1103]  
White, "The Pursuit of Happiness," xi-xii, 3-11  
Turabian, *A Manual for Writers*, Part I, 24-47

[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 #11    Th 9/29    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 #12    Tu 10/2    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 #13 Th 10/4 The Structure of Kantian Ethics**

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

**Class #14 Tu 10/9 Normative Ethical Theism  
Augustine, Aquinas, and Luther**

Aquinas, *Summa Theologiae*, Question #2 [5–17], #5 [61–81], #6 [83–93]  
*Genesis* 1:1–31

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

**Class #15 Th 10/11 The Structure of Biblical Theism**

Selected Texts of the Biblical Narrative

**Class #16 Tu 10/16 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, 274–75  
Martin and Schinzinger, "Engineering as Social Experimentation," 88–106

**Class #17 Th 10/18 Computer Ethics**

*Engineering Ethics*, Chapter 5, "Computers, ... Morality, and Social Policy," 101–24  
Gotterbarn, Miller, and Rogerson, "Software Engineering Code of Ethics," 102–7  
\* Williams, "Sustaining the Longer Sentence," 79–105, 205–17

**Class #18 Tu 10/23 The Frontiers of Cyberspace  
Research Paper Bibliography Due**

Spinello, *CyberEthics: Morality and Law in Cyberspace*, 1–10, 29–52  
Turabian, *A Manual for Writers*, Part II, 133–280, *Chicago Manual of Style* citation format;  
focus attention on chapters 16–17, dealing with "Notes" and "Bibliographies"

**Class #19 Th 10/25 Fiduciary Relationships and Conflict of Interest  
Final Version of Response Paper #3 Due**

*Engineering Ethics*, Chapter 6: "Honesty, Integrity, and Reliability," 125–49  
Bayles, "Obligations between Clients and Professionals"  
[Turabian, *A Manual for Writers*, Part I, 48–70]

**Class #20    Tu 10/30    The Engineer's Responsibility for Safety**  
**Research Paper *Plan* and *Outline* Due**

*Engineering Ethics*, Chapter 7: "Safety, Risk, and Liability in Engineering," 150-80  
Petroski, "Accidents Waiting to Happen," 85-97  
Martin and Schinzinger, "Dimensions of Engineering," 16-20  
[Turabian, *A Manual for Writers*, Part I, 71-81]

**Class #21    Th 11/1    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](http://www.caib.us)]

**Class #22    Tu 11/6    Employee-Employer Relations**  
**Whistle-Blowing**

*Engineering Ethics*, Chapter 8: "Engineers as Employees," 181-213  
De George, "Ethical Responsibilities of Engineers in Large Organizations," 175-86  
James, "Whistle-Blowing: Its Moral Justification," 263-78

**Class #23    Th 11/8    Bioengineering**  
**Complete Draft of Research Paper Due**

Invited Speaker  
Contemporary Issues for Discussion

**Class #24    Tu 11/13    Engineers and the Environment**  
**Peer Review of Research Papers**

*Engineering Ethics*, Chapter 9: "Engineers and the Environment," 214-30  
\* "Emphasis, Elegance, and Economy"

**Class #25    Th 11/15    Choosing a Vocation**  
**Obligations of the Profession**  
**Personal Mission Statement Due**  
**Final Version with Critical Reflection**

Fleddermann, "Doing the Right Thing," 112-14  
Meese, "The Sealed Beam Case: Engineering in the Public and Private Interest," 1-20  
Martin and Schinzinger, "Saving Citicorp Tower," 12-14  
Morgenstern, "The Fifty-Nine Story Crisis," 45-53

