LEONARDO'S NOTEBOOKS:
TECHNICAL WRITING AND WESTERN HUMANISM

TECHNICAL WRITING (WRTG-21300) FALL, 2016
MW 4:00 AM - 5:15 PM Smiddy 109

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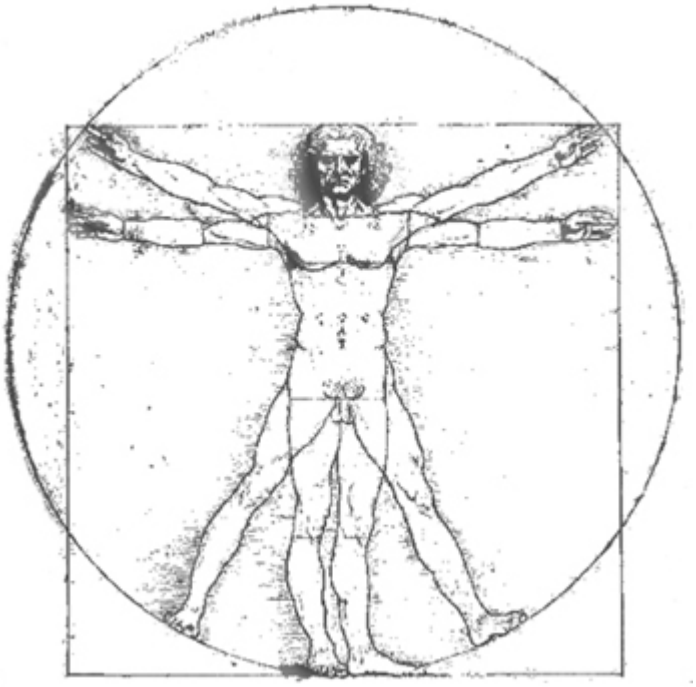
CLASS TEXTS

- Da Vinci, Leonardo. *The Notebooks of Leonardo Da Vinci*. Ed. Irma A. Richter. (Oxford, 2008)
- Dombrowski, Paul. *Ethics in Technical Communication*. (Allyn & Bacon, 2000)
- Gelb, Michael. *How to Think Like Leonardo Da Vinci: Seven Steps to Genius Every Day*. (Dell, 2000)
- Reep, Diana. *Technical Writing: Principles, Strategies, and Readings*. 8th ed. (Allyn & Bacon, 2011)

Handouts: Models and samples of technical writing, articles on organizational communication and dynamics.



REFLECTIONS ON TECHNOLOGY AND TECHNICAL COMMUNICATION

"Science is the captain, practice the soldiers. Therefore, those who wish to communicate technical ideas to others should adopt this motto: '*Ostinato rigore*!' Obstinate rigor!"
~~Leonardo Da Vinci (1452-1519)

"The mechanical arts, having in them some breath of life, are continually growing and becoming more perfect. As originally invented, they are commonly rude, clumsy, and shapeless; afterwards, they acquire new powers and more commodious arrangements and constructions . . . [till] they arrive at the ultimate perfection of which they are capable. Philosophy and the intellectual sciences, on the contrary, stand like statues, worshiped and celebrated, but not moved or advanced." ~~Sir Francis Bacon (1561-1626)

"Your Highness! My work in the Great Arsenal of Venice brought me in daily contact with sailors, carpenters, and so on. These men are unread. They depend on the evidence of their senses. But they taught me many new ways of doing things. The question is whether the so-called experts want to be found out as fools by those who might not have had the advantage of a classical education but who are not afraid to use their eyes. I tell you that our dockyards are stirring with the same high curiosity which was the true glory of ancient Greece."

~~Galileo Galilei (1564-1642)

"We can understand only what we have invented." ~~Giambattista Vico (1668-1774)

PURPOSE

This introductory writing course teaches the fundamentals for communicating technical information to general and specialized audiences. We will cover the foundations of technical writing, their formats and applications, context-specific writing strategies, basic visual design, and ethics. We also will address certain challenges within the field: job-hunting, group work, institutional demands, and market forces.

Whether you are taking this class as a requirement for a major or minor, as a general elective, or as part of the Professional Writing concentration within the Writing major, exposure to technical writing will benefit you, professionally *and* intellectually. In fact, studying technical writing may teach you much about what it means to be human. *Homo sapiens*, after all, are tool-making animals, and technical communication—probably the oldest form of writing—creates a vital dialogue between human beings and their artifacts. Not surprisingly, then, technical writing, like technology itself, has had a major impact on human society and culture. Indeed, some scholars would argue, technical writing may lie at the heart of Western Humanism.

That is why this course is organized around the scientific notebooks of Leonardo Da Vinci. Artist, scientist, engineer, and courtier, Leonardo, in many ways, was the first modern technical writer. As Italo Calvino notes,

> Leonardo's codices comprise an extraordinary documentation of struggle with technical language, a gnarled, spiky language, from which he seeks richer, more subtle, and more precise expression. The various phases in his treatment of a mechanical idea prove the effort he invested in writing as an instrument of scientific knowledge; and in the case of the technical manuals he thought of writing, he was more interested in the process of inquiry than in the completion of a publishable text.
>
> Despite his skills as an artist, therefore, Leonardo felt an incessant need to write, to use words to investigate the world in all its polymorphous manifestations and secrets, and he called his fellow technical writers "*gli inventori e interpreti tra la natura e li uomini*," the inventors and interpreters between nature and men. Not surprisingly, then, with the passing of the years, he gave up painting altogether and expressed himself exclusively through writing and drawing, as if following the thread of a single discourse in text and graphics, filling his notebooks with his left-handed mirror writing.

Leonardo's skills as a technical communicator—whether describing human anatomy, explaining the properties of water, experimenting with the mechanics of flight, or designing public works—are as instructive as they are impressive. Equally important, the challenges, setbacks, and temptations of his professional career contain important lessons for young technical writers. As we study his life and times, drawing the necessary parallels to our own, we will work side-by-side with the Maestro and follow his seven principles of creativity:

Curiosità:	An insatiable curiosity about life and an unrelenting quest for continuous learning.
Dimostrazione:	A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes.
Sensazione:	The continual refinement of the senses, especially sight, as the means to enliven experience.
Sfumato:	(Literally "going up in smoke") A willingness to embrace ambiguity, paradox, and uncertainty.
Arte/Scienza:	The development of a proper balance between science and art, logic and imagination. Whole-brain thinking.
Corporalita:	The cultivation of grace, ambidexterity, fitness, and poise.
Connessione:	A recognition of and appreciation for the interconnectedness of all things and phenomena. Systems thinking.

With Leonardo's help, you will become more of a Renaissance communicator!

OVERVIEW

This course is divided into seven parts. Each part deals with a particular set of technical writing skills and corresponds to a related stage in Leonardo's life and career:

1) **"STATE OF THE ART"** defines good technical writing and introduces the course's main themes. Historically, we will see how the Renaissance's rediscovery of classical empiricism and rhetoric laid the foundation for modern science and technical communication and inspired the young Leonardo. Practically, we will see how *audience* and *purpose* determine *message* and *style*.

2) **"APPRENTICESHIP"** presents the basic models of technical writing (*definition*, *classification*, *description*, *partition*, *instruction*, *procedure*, and *process explanation*)

and demonstrates their most effective application. We will watch the student Leonardo use similar models in his notebooks while apprenticing in a Florentine art studio.

3) **"PERSPECTIVES"** tackles the subject of *visual rhetoric*. "Sight is the greatest of senses," Leonardo believed, and we will draw from his treatises on painting and perspective to learn rudimentary *document design*. Unlike other forms of argument and exposition, technical writing relies as much on layout, typeface, and graphics as words.

4) **"PATRONAGE"** suggests ways of applying visual and verbal skills in the market. Following Leonardo's quest to secure a powerful patron, we will assemble an *application portfolio* for a technical writing position, including a *cover letter*, *résumé*, *professional autobiography*, and *writing sample*. We also will examine different careers in technical communications.

5) **"TEMPTATIONS"** addresses *professional* and *rhetorical ethics*. Despite high ideals, Leonardo often resorted to such questionable practices as stealing cadavers for medical research and designing weapons of mass destruction for warlords. Too often technical communications betrays its humanistic creed. As you prepare to write an *ethics probe* on a technical writing controversy, the class will review recent cases like the *Challenger* disaster and a 17th century tragedy of science involving Leonardo's great successor, Galileo Galilei.

5) **"PUBLIC WORKS"** provides a forum for group work and problem-solving. After studying Leonardo and Niccolò Machiavelli's joint engineering project to divert the course of the Arno, we will collaborate to solve an operational problem at an organization through a series of technical reports.

7) **"LEGACY"** recaps the goals and values of technical writing, summarizes the ambiguities of Leonardo's life and work, and suggests further areas of study in technical writing. Exit interviews and advising on other PTW courses will be held during exam week.

SPECIFICATIONS

Sophomore standing and a *100-level writing course except WRTG-17500* are required for this course; but clear professional goals are also desirable. Personalize and invest in your work. Since writing assignments are deliberately open-ended, focus and direction will enhance your overall performance and will result in a unified portfolio.

DELIVERABLES

Your final letter grade for the semester will be determined by the following:

Exercises **(25%):**
Four short pieces testing your mastery of the fundamentals of technical writing and visual design.

Portfolio **(25%):**
A group of documents and credentials submitted as part of a job application in technical writing.

Ethics Probe **(25%):**
A case file on a technical communication controversy within your field.

Group Dossier **(25%):**
A collection of short technical reports identifying, analyzing, and solving an operational problem at an organization.

These assignments are focused enough to teach you the necessary skills but open enough to allow you to write for and about your professional field of interest.

QUALITY CONTROL

Like future employers and government inspectors, I expect only the best from you. Dealing with human lives and human inventions, technical communications can neither afford nor tolerate fuzzy thinking, sloppy writing, or slipshod ethics. Hence these grading criteria:

- **D** work is substandard. Poor effort, empty thinking, weak writing. The assignment is underwritten, incomplete, or riddled with careless mechanical errors.

- **C** work is competent. Minimum effort, standard thinking, conventional writing. While the assignment is complete and glitch-less, it lacks originality, invention, and creativity.

- **B** work is good. Genuine effort, sound thinking, solid writing. The assignment takes risks, holds promises, but still needs improvement.

- **A** work is excellent. Enthusiastic effort, original thinking, distinguished writing. The assignment demonstrates expertise and style and balances creative and analytical thinking.

OPERATIONAL PROCEDURES

1) **ATTEND CLASS**: Poor attendance will affect your final grade. Keep up with all readings and participate in all class activities and workshops. Should you miss class, contact a classmate for any missing assignments or lecture notes. Also, turn in work *on time* even if you cannot do so in person. Two absences are allowed without penalty, but each subsequent absence lowers your final average by half a letter grade. ***According to Department of Writing, six absences will result in dismissal from this course.***

   Please note the holidays listed in the Undergraduate Catalog's academic calendar. In accordance with New York State law, students who miss class due to their religious

beliefs shall be excused from class or examinations on that day. Such students must notify their course instructors at least one week before any anticipated absence so that proper arrangements may be made to make up any missed work or examination without penalty.

2) **EMBRACE PRACTICE**: Writing is *recursive*, Leonardo discovered in his notebooks, a *process* more than a product, moving from brainstorming and outlining to drafting and revision and then cycling back. For each written assignment, peers will comment on your draft in class on days marked as "workshop." Instructor feedback will be given prior to due date as well as on submitted drafts. This practice will sharpen your thinking and improve your writing. Indeed, you will learn that writing itself is a way of thinking.

4) **MEET DEADLINES**: They are the bottom line in technical communication. ***Late papers will not be accepted.*** Revisions are due ***one week*** after receiving the evaluated first draft. No revisions for final dossier.

5) **BE HONEST**: This isn't a course in industrial espionage. A plagiarized paper will receive an F, and you will be asked to withdraw from the course.

6) **SEEK HELP WHEN NECESSARY**: First, visit The Writing Center, Smiddy 107—a free resource facility where, at scheduled times throughout the week, you may consult with trained student and faculty tutors about your writing.

Second, in compliance with Section 504 of the Rehabilitation Act of 1973 and the American Disabilities Act, reasonable accommodations will be provided to students with documented disabilities on a case-by-case basis. Students must register with the Office of Academic Support Services (Smiddy 322) and provide appropriate documentation to the College before any academic adjustment will be provided.

WRITING INTENSIVE REQUIREMENT, ICC, AND THE E-PORTFOLIO

THE COMMITTEE FOR COLLEGE-WIDE REQUIREMENTS (CCR) has designated this course as "*Writing Intensive*" (W) within the Integrative Core Curriculum (ICC). If you entered Ithaca College in 2013 or later, you are required to take at least one W course and to upload appropriate artifact(s) to your ePortfolio on Taskstream to demonstrate your achievement of the Student Learning Objectives (SLOs) listed below.

Writing Intensive courses build on your ability to use writing both as a process for *making meaning* within a *specific subject area*, as well as for participating in *ongoing conversations* within a *particular academic or professional community*. Upon completion of a Writing Intensive course, you will be able to:

1. Develop and articulate content knowledge and critical thinking in a specific academic discipline or related profession through frequent practice of informal and formal writing.

2. Demonstrate understanding of audience expectations, genres, and conventions appropriate to communicating in a specific academic discipline or related profession.

3. Compose one or more documents totaling at least 3,000 words through multiple stages of writing, including brainstorming, drafting, integrating sources, and revising comprehensively after receiving substantial, formative feedback on drafts.

Technical Writing meets these three objectives and can provide you with many appropriate artifacts for Taskstream, the ePortfolio and assessment system for the Integrative Core Curriculum (ICC). This system is easy to use. On the Taskstream homepage, you will view two Directed Response Folios (DRF) programs, an icon for ICC, and one for Academic Writing 10600. The ICC DRF will include a marker for you to upload artifacts for the Writing Intensive Requirement. I would be happy to make recommendations for your ePortfolio.

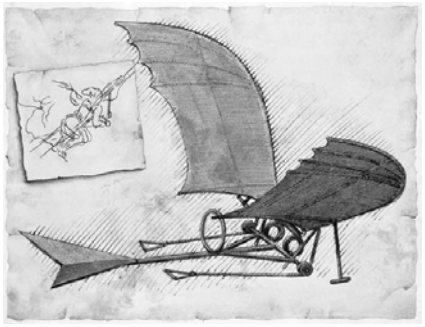
Technical writing is a genuine art. Work with these standards and guidelines until you master the craft, then forget the rules.

As Leonardo said: *"Experts claim I can't communicate without their training. They don't know my subjects are best dealt with experience, not words. Experience is the mistress of those who write well."*

STUDIO CALENDAR

I. STATE OF THE ART: Understanding Technical Writing

"Study the art of science and the science of art." *Leonardo*



AUG 24: THE MYTH OF DAEDALUS:
Tekhê, *Logos*, and the Human Project.

WORKBOOK: *Tekhê* and Civilization (*handouts*)
- Francis Bacon, "Daedalus."
- Neil Postman, "The Judgment of Thamus."
- Marshall McLuhan, "Four Laws of Media."

AUG 29: Reep, *Technical Writing*:
- Ch 1: "Technical Writing on the Job," 3-26.
- Ch 3: "Audience," 48-72.
- Phil Kolin, "Four Keys to Effective Writing" (*handout*).

Advice from the Workplace
- Robinson, "Six Tips for Talking Technical," 509-11.

Gelb, *How to Think Like Leonardo Da Vinci*:
- "The Renaissance, Then and Now," 12-19.
- "The Life of Leonardo," 20-45.
- "*Curiosità*," 48-75.
- "*Arte/Scienza*," 164-91.

Leonardo, *Notebooks*: *Methodology for Technical Communications . . .*
- "Experience," 1-6.
- "Reason and Nature's Law," 6-7.
- "Experiment," 9.

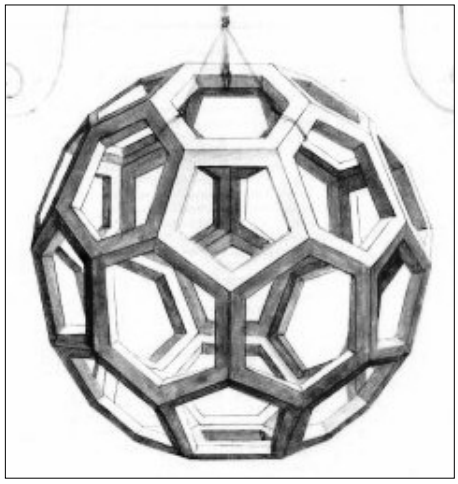
WORKBOOK: Four Views of Kudzu (*handouts*)
- Gulf Coast Industrial Park, "Landscaping with Kudzu."
- Extension Agronomy, MSU, "How to Grow Kudzu."
- *Weed Science*, "Herbicide Application on Control of Kudzu."
- James Dickey, "Kudzu."

II. APPRENTICESHIP: Methods and Models of Technical Writing

"All knowledge has its origins in our perceptions." *Leonardo*

AUG 31: ***Definition and Classification***

Bring to class an example of technical writing that defines a single term or object, or explains and categorizes multiple but related terms or objects.



Reep, *Technical Writing*:

- Ch 8: "Definition," 175-92.

Gelb, *How to Think Like Leonardo Da Vinci*:

- "*Dimostrazione*," 76-93.

Leonardo, *Notebooks*:

- *Definition*: "The Four Powers of Nature," 53-55; "Weight," 55-58; "Force and Weight," 58-62.
- *Classification*: "Mechanics," 75-76; "Friction," 76-78."

WORKBOOK: Classification in Science and Industry (*handouts*)

- OSHA, "Health and Safety Guide for Bulk Petroleum Plants."
- Department of Interior, "Kinds of Maps and Kinds of Data."
- National Bureau of Standards, "Radio Frequencies."
- *McGraw-Hill Encyclopedia of Science and Technology*, "Speech Disorders."

EXERCISE 1: Write one of the following, drawing from your field of interest:

1. A ***definition*** of a term or object. Be thorough but succinct, choosing only those details serving a *specific target audience*. For the best results, use the most appropriate *patterns of expansion* listed in your textbook: cause-and-effect or effect-and-cause, classification, comparison or contrast, description, development or history, etymology, example, method of operation or process.

2. A ***classification*** of related terms or objects. Create an effective taxonomy by foregrounding a *unifying principle* while *distinguishing* each member of a particular set. What *connection* should your readers make, and for what *purpose*?

Model 8-1 contains examples of both assignments. Whichever you choose, work from a strong outline and visually enhance legibility through headings and subheadings, bolds and italics, and shadings and indentations. 2-3 double-spaced pages (500 to 750 words).

SEP 05: LABOR DAY. NO CLASS.

SEP 07: WORKSHOP.
Reep, *Technical Writing*:
- Ch 4: "Organization," 73-97.

Leonardo, *Notebooks*:
- *Outlines and Mind Maps*: "Notes for *The Book of Water*,"18-19.
- *Free Writing*: "Water and Air,"36-37.

Gelb, *How to Think Like Leonardo Da Vinci*:
- "*Arte*/*Scienza*,"164-91.

SEP 12: ***Description and Partition***

EXERCISE 1 DUE.
Bring to class an example of technical writing that thoroughly describes an object or divides and details its component parts.

Reep, *Technical Writing*:
- Ch 9: "Description," 193-212.

Gelb, *How to Think Like Leonardo Da Vinci*:
- "*Sensazione*," 94-141.

Leonardo, *Notebooks*:
- *Description*: "Water," 17-27; 31-36.
- *Partition*: "The Human Eye," 152-53; "The Tongue,"153-55; "The Lips," 155-56.

WORKBOOK: Partition in Science and Industry (*handouts*)
- Smithsonian Institution, "The Bee Colony."
- Federal Aviation Administration, "Keeping Your Balloon in Shape."

EXERCISE 2: Write one of the following, drawing from your field of interest:

1. A ***description*** of a natural or artificial object. Whether your approach is *clinical* (Model 9-2a and 2b), *expository* (Model 9-2c) or *narrative* (Model 9-3), choose only those details that serve an *exact purpose* for a *particular audience*. To marshal your facts, select the most appropriate *organizational pattern* for your object, *spatial* or *chronological*.

2. A ***partition*** of a natural or artificial object. Even as you break down your object into its *key parts*, never lose sight of *the whole*. Like the division of labor on an assembly line, each segmented description should be complete and exact unto itself, but should work with the others to produce a clear pattern or explanation.

As in Exercise 1, work from a strong outline and enhance legibility through editing and format. 2-3 double-spaced pages (500 to 750 words).

SEP 14: WORKSHOP.

Reep, *Technical Writing*:
- Ch 5: "Revision and Style," 98-121.
- Appendix A: "Grammar, Punctuation, and Mechanics," 494-510.

Advice from the Workplace
- Bagin and Van Doren, "Avoid Costly Proofreading Errors," 447-49.
- Barefoot, "Ten Tips on Writing White Papers," 450-52.
- Nielsen, "Write for Reuse," 467-70.

Leonardo, *Notebooks*:
- "Three Views of a Whale," 246-48.
- "Drafts of a Memo," 305-06.
- Italo Calvino, "Exactitude: Leonardo and the Science of Revision" (*handout*).

CASEBOOK: Flights of Fancy
- Leonardo, *Notebooks*: "Flight," 83-101.
- John Dos Passos, "The Campers at Kitty Hawk" (*handout*).

SEP 19: ***Process Explanations and Instructions***

EXERCISE 2 DUE.
Bring to class an example of technical writing that either describes and explains a process or procedure, or instructs a reader to perform a process or procedure.

Reep, *Technical Writing*:
- Ch 10: "Instructions, Procedures, and Process Explanations," 213-45.

Gelb, *How to Think Like Leonardo Da Vinci*:
- "*Connessione*," 220-41.

Leonardo, *Notebooks*:

- *Instruction*: "Crafting Lenses," 50-51; "Of Movement,"65-66; "Weighing Instruments," 78-79; "How to Paint A Battle," 174-76; "How to Paint Night," 176-77; "How to Paint a Tempest," 177-78; "How to Paint a Deluge," 178-84.

- *Procedure*: "The Life and Structure of Things," 137-38; "Proportion," 138-46; Architectural Planning," 196-203.

- *Process Explanation*: "The Deluge and Shells," 27-30.

WORKBOOK: Scientific Process and Industry (*handouts*)

- Robert Boyle, "Experiment: Pressure-Volume Relations in a Gas."
- Benjamin Franklin, "The Pennsylvania Stove."
- John Mc Phee, "Oranges."

EXERCISE 3: Write one of the following, drawing from your field of interest:

1. A set of ***instructions*** or ***procedures*** that help a reader perform a task. Although quite similar, these two technical writing strategies differ in important ways.

♦ Instructions are *private* and *independent*. They usually address *a single reader*, who can complete a voluntary task alone at home leisurely and informally.

♦ Procedures are *public* and *systemic*. They usually address *multiple readers*, who must cooperate to perform a mandatory task at work by following strict institutional guidelines.

Both forms require an *introduction*, *sequential steps*, and a *conclusion*, with any necessary *warnings*, *cautions*, and trouble-shooting. (See Model 10-1 for an outline.) Procedures, however, may be written in *playscript format*.

2. A ***process explanation*** of how a series of events leads to a specific result. You may describe four possible types of actions:

♦ *Actions occurring in nature*, such as how diamonds form, how the liver functions, or how a typhoon develops. (See Model 10-9.)

♦ *Actions producing a product*, such as how steel, light bulbs, or baseballs are made.

♦ *Actions comprising a particular task*, such as how gold is mined, how blood is tested for cholesterol, or a highway is paved. (See Model 10-5.)

♦ *Actions in the past*, such as how the Romans built their aqueducts or how the Finger Lakes were formed.

Since your task is to guide readers to *understand* rather than perform an action, *explain* and *narrate* rather than instruct. However, even if your approach is journalistic or literary, carefully organize your facts, following the model outline in your textbook (Model 10-6).

As usual, identify your audience, establish your purpose, formulate your message, and cultivate the right style. 3-4 double-spaced pages (750 to 1,000 words).

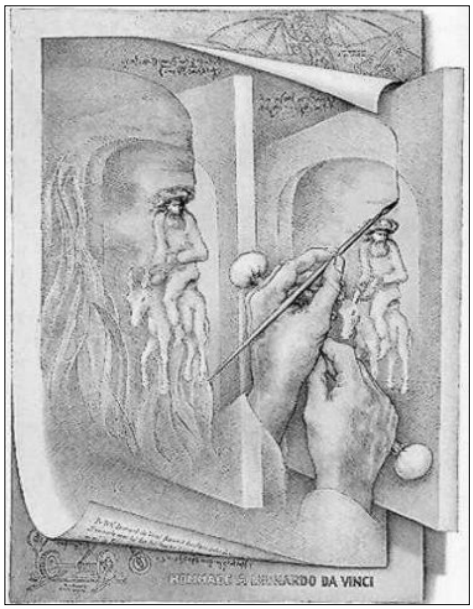
SEP 21: WORKSHOP.

III. PERSPECTIVES: Visual Rhetoric and Technical Writing

"O writer, with what letters can you convey knowledge with such perfection as drawing?" *Leonardo*

SEP 26: EXERCISE 3 DUE.

Bring to class a technical document using striking but effective layout and graphics to communicate to readers.



Reep, *Technical Writing*:

- Ch 6: "Document Design," 122-57.
- Ch. 7: "Writing for the Web," 158-87.

Advice from Workplace

- Nielsen, "First 2 Words: A Signal for the Scanning Eye," 463-66.
- Schafer, "Ten Tips for Writing Better Web Survey Questions," 473-77.
- Tufte, "Narrative Graphics" (*handout)*.

Gelb, *How to Think Like Leonardo:*

- "The Beginner's Da Vinci Drawing Course," 262-305.

Leonardo, *Notebooks*:

- *The Mechanics of Perspective*: "The Eye and the Appearance of Things," 102-18; "The Surface of Things and Light," 118-37.
- *Visual Design*: "Symbolism," 242-46.

WORKBOOK: Effective Visuals (*handouts*)

- Leonardo's technical drawings.
- Dos Passos, "Image Maker: George Eastman and the Kodak."

EXERCISE 4:

1. To demonstrate your *visual and desktop skills*, write and design an illustrated, single-spaced ***brochure***, ***pamphlet***, ***article***, ***mailer***, ***insert***, or ***ad***. Layout, graphics, and typeface should enhance, not overwhelm the text, which should run to a maximum of 2-3 double-spaced pages (500 to 750 words).

Meet these criteria:

- Your topic must be in your specialized field but have wide appeal.
- Your treatment must use a technical writing model *different* from those in your prior assignments.

For the best results, use sample readers to test your piece for *legibility*, *comprehension*, and *attractiveness*.

2. In addition, submit a detailed ***cover document***, 2-3 double-spaced pages (500 to 750 words), in which you explain how and why you designed your piece. Include the following information:

- *Topic summary*: Why is this subject valuable and important to you and the general public?
- *Audience analysis*: What is the demographic profile of your intended readers? What are their rhetorical needs?
- *Purpose*: What does this piece hope to accomplish? What results do you want?
- *Editorial choices*: How did audience and purpose influence organization, vocabulary, and style? What might you have done differently for another audience?
- *Layout and design*: How did these previous factors determine visual content? Identify typeface, graphics, etc. and explain your choices.

Consider this exercise an opportunity to discuss shop and to become more self-aware of your choices as technical communicator. TOTAL: 1,000 to 1,500 words.

SEP 28: WORKSHOP.

IV. PATRONAGE: Skills and the Marketplace

"My Lord, I wish to work miracles on your behalf." *Leonardo*

OCT 03: EXERCISE 4 DUE.
Bring to class a want ad for a technical communications position from a reputable periodical, professional journal, or corporate Web site.

Reep, *Technical Writing*:
- Ch 15: "Career Communication," 400-26.

Advice from the Workplace
- Humphries, "Business Manners," 459-60.

Gelb, *How to Think Like Leonardo Da Vinci*:
- "*Corporalità*," 192-219.

Leonardo, *Notebooks*:
- *Credentials*: "Application Letter to Ludovico Sforza," 275-77.

WORKBOOK: Crafting Your Professional Self (*handouts*)
- Sample cover letters and résumés.
- Professional autobiographies of technical writers.

PORTFOLIO: Imagine applying for a technical writing position at an organization in your field.

♦ The job internship may be imaginary, but the organization must be real. That means researching this institution's history, values, and operations and understanding its technical communications needs.

After analyzing your prospective employer, assemble an application portfolio containing the following documents:

1. ***Cover Letter*:** Target the position, present your credentials, showcase your skills, and arrange for an interview. 1-2 single-spaced pages, good stationery (500 to 750 words).

2. ***Résumé*:** Supply a concise but informative review of relevant education and training, employment history, professional skills and activities. Include three references. Perfect layout. 1-2 single-spaced pages, good paper (500 to 750 words).

3. ***Professional Autobiography*:** Spotlight a skill or work experience that makes you uniquely qualified for this position in a brief essay. Whether your approach is *reflective* or *dramatic*, keep the *reader's* needs to the forefront. Avoid self-indulgence. 2-3 double-spaced pages (500 to 750 words).

4. ***Writing Sample*:** Compose and design a single-spaced *brochure*, *pamphlet*, *article*, *mailer*, *insert*, or *ad* on a subject related to the position or organization. Body copy should be no more than 2-3 double-spaced pages (500 to 750 words). Use a technical writing model *different* from those in your prior assignments.

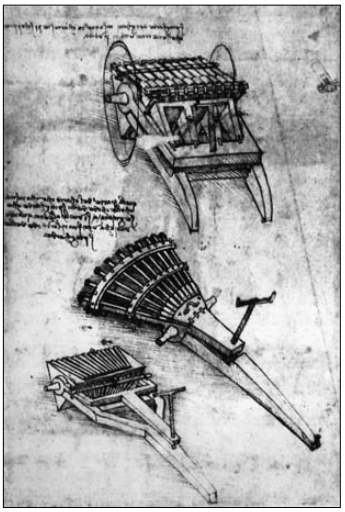
Arrange these documents in a professional portfolio. TOTAL: 2,000 to 3,000 words.

OCT 05: WORKSHOP.

OCT 10: WORKSHOP.

V. TEMPTATIONS: Ethics, Argument, and Organizations

"This I do not publish or divulge on account of the evil nature of men." *Leonardo*



OCT 12: PORTFOLIO DUE.

Reep, *Technical Writing*:

- Ch 2: "Collaboration and Ethics," 27-47.

Writerly Advice from the Field

- Caher, "Technical Documents and Legal Liability," 453-58.
- IABC, "Code of Ethics for Professional Communication," 461-62.
- Raspberry, "The Buck Stops Here," 471-72.
- Wicclair and Farkas, "Ethical Reasoning and Technical Communication," 486-93.

Dombrowski, *Ethics in Technical Communication*:

- Preface, ix-xiii.
- Ch 1: "The Nature of Ethics," 1-11.
- Ch 2: "Survey of Ethics in Communication and Rhetoric," 12-37.
- Ch 3: "The Ethics Tradition," 38-79.

Gelb, *How to Think Like Leonardo Da Vinci*:

- "*Sfumato*," 142-63.
- "Leonardo's Values and Advice for Living," 251.

Leonardo, *Notebooks*:

- *The Jungle*: "Bestiary," 215-20.
- *Fables*: "The Privet and the Blackbird," 220; "The Laurel, the Myrtle, and the Pear," 221; "The Chestnut and the Fig," 221-22; "The Willow and the Gourd," 222-23; "The Ant and the Grain," 224; "The Spider and the Grapes," 224-25; "The Moth and the Candle," 225-26; "The Stone by the Road," 227-28,
- *Morals*: "Life Passes," 257-60.

OCT 17: Dombrowski, *Ethics in Technical Communication*:

- Ch 4: "Nazi Records: The Origin and Use of Information," 81-120 ***or***
- Ch 5: "*Challenger* Disaster: Information vs. Meaning," 121-51.
- Richard Feynman, "Personal Observations on the Shuttle" (*handout*).

Handouts:

- New York Times and Ockam's Razor, "Nazi Science" ***or***
- BBC, "The *Columbia* Disaster: Death by PowerPoint."
- William Langeweische, "A Two-Planet Species?" and "*Columbia*'s Last Flight."

Leonardo, *Notebooks*:

- *War Machines*: "Of the Power of the Crossbow," 68-70;"Submarine," 92-93; "Of Great Guns," 237; "Of Swords and Spears," 238; "Scuba and Sea Mines," 278; "Archimedes' Cannon," 320.

OCT 19: Dombrowski, *Ethics in Technical Communication*:

- Ch 6: "Tobacco and Death: When is a Cause Not a Cause," 152-89 ***or***
- Ch 7: "Star Wars: Hope vs. Reality," 190-232.

Niccolò Machiavelli, *Chancery Writings*:

- "Releases and Technical Reports" (*handout*s).

WORKBOOK: Technology and Public Relations (*handout*)

- Phil Kolin, "Technical Publicity Announcement."
- Abbott Laboratories, press release: "New Blood-Clot Dissolving Agent."
- General Electric, press release: "New Sylvania Outdoor Lighting System."

OCT 24: Reep, *Technical Writing*:

- Ch 14: "Letters, Memos, and E-Mail," 367-410.
- Ch 11: "Formal Report Elements: Abstracts and Summaries," 246-78.

Advice from the Workplace

- Smith, "Eleven Commandments for Business Meeting Etiquette," 517-18.
- Weiss, "Taking Your Presentation Abroad," 480-85.

Leonardo, *Notebooks*:

- *Memos and Letters*: "To Ludovico Sforza: On Government," 268; "Notes from Leonardo's Day Planner,"283-85, 303-04, 325; "To Ludovico Sforza: The Martesana Canal," 293; 'To Cardinal d'Este," 336-37; "To Louis XII," 344, 350-51.

WORKBOOK: Group Dynamics and Communication (*handouts*)

- Roger Von Oech, "Breaking Group Think."
- Phil Kolin, "Meetings and Minutes."

PROBE:

Using Paul Dombrowski's case studies as a guide, conduct your own ethical probe of a scandal or controversy in your field involving technology or technical communications. Play investigator. Research the incident, ask the hard questions, and assemble a file. Do the following:

1. Summarize the facts of the incident in a ***letter***, ***memo***, ***press release***, or ***newsletter article*** (2 single-spaced pages). TOTAL: 500 to 750 words.

2. Discuss and analyze its background and cause(s)—either reportorially, in an ***in-house memo*** (3-single-spaced pages) or ***professional journal article*** *(*5 double-spaced pages*)*; or dramatically, in ***committee minutes*** or ***transcripts*** (3 single-spaced pages). TOTAL: 1,000 to 2,000 words.

3. Substantiate your claims by providing ***abstracts*** or ***summaries*** of *five existing articles or reports* on this case (2 to 3 single-spaced pages). TOTAL: 1,000 to 2,000 words.

4. Report its fallout in a ***letter***, ***memo***, ***press release***, or ***newsletter article*** (2 single-spaced pages). TOTAL: 500 to 750 words.

Make this file accessible and effective. Create a reader-friendly format and encourage the documents to work together. Demonstrate an ability to command and to argue from facts. FINAL TOTAL: 3,000 to 5,500 words.

OCT 26: WORKSHOP

OCT 31: WORKSHOP

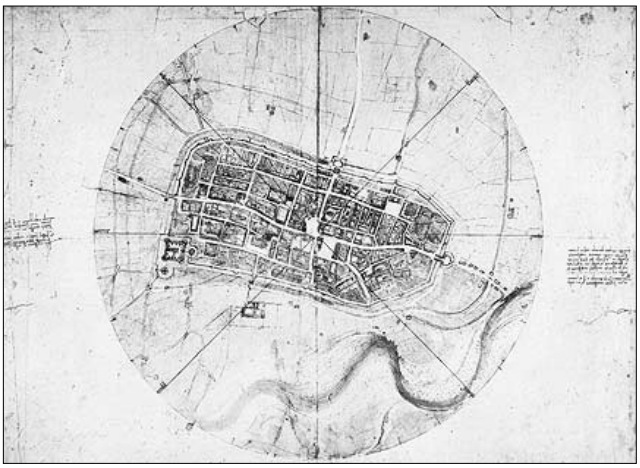
VI. PUBLIC WORKS: Problem-Solving and Short Reports

"If my proposals seem possible or practical, I am ready to make trial of them in your employ." *Leonardo*

NOV 02: ETHICS STUDY DUE.

Reep, *Technical Writing*:

- Ch 12: "Short and Long Reports," 279-317.
- Ch 13: "Types of Reports,"318-66: *Feasibility Study*, 319-21; *Incident Report*, 322-23; *Investigative Report*, 324-27; *Progress Report*, 328-30; *Trip Report*, 331-32; *Proposal*, 333-38.



Leonardo, *Notebooks*:

- *Feasibility Study*: "Repairing the Cathedral of Milan," 281-83; "Casting the Bronze Horse," 293-95.
- *Incident Report*: "The Battle of Anghiari," 328-29.
- *Investigative Reports*: "Cause of Flooding in Savoy," 310-11; "Investigation of the Chiana Valley," 321-22; "The Arno Diversion Project," 326-27.
- *Progress Reports*: "An Account of Works to My Milanese Patrons," 338-39.
- *Performance Reports*: "The Battlements of Pavia," 288-90; "Salaì," 290-91; "The Harbor at Civitavecchia," 354.
- *Trip Reports*: "Mount Taurus," 248-53; "Lake Como," 279-81.
- *Proposals*: "Plans for Water Mill," 203-04; "To the Piacenza Commissioners of Buildings,"301-03; "The Vatican Mint," 352; "Transportable Houses and Canals," 358-59.

WORKBOOK: Performance and Evaluation (*handouts*)

- Phil Kolin, "How to Write Performance Reports."
- NASA, "Health Status of the Skylab 3 Crew."
- Bell, "The Solar Heating System at Bell Telephone of Pennsylvania."

DOSSIER: Form a work group of four to six members—ideally, with shared or compatible professional backgrounds and interests.

After electing a project manager to supervise and coordinate, select and research an actual organization that produces, promotes, or relies on technology. Discover or invent an operational problem, then create and implement a solution in a series of short reports.

This group dossier should:

1. Define or document the problem in an *incident report*, *trip report*, or *performance evaluation*.

2. Determine and analyze root causes in an *investigative report* or *performance evaluation*.

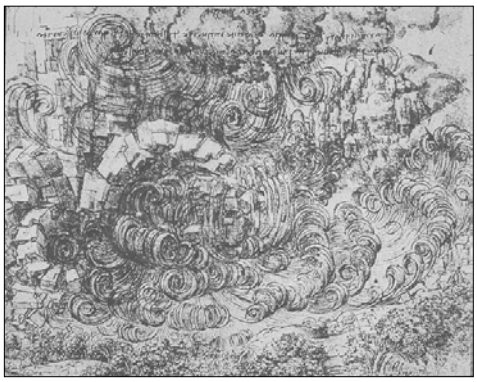
3. Discuss or debate courses of action in a *feasibility study* or *proposal*.

4. Deliver or monitor a solution in a *proposal*, *progress report*, or *performance evaluation*.

Each report should be 2 to 4 single-spaced pages (1,000 to 2,000 words), with appropriate headings, subheadings, tables, charts, and graphics. Divide the work efficiently and effectively. Vary documents and professionally bind dossier. Your group will give a 10-minute oral presentation before handing in the assignment. TOTAL: 4,000 to 8,000 words.

NOV 07: CASEBOOK: Flood Control

- "The Arno River Diversion."
- "The Mississippi Flood Basin."



NOV 09: WORKSHOP.

NOV 14: WORKSHOP.

NOV 16: Reep, *Technical Writing*:

- Ch 14: "Oral Presentations,"435-48.

Advice from the Workplace

- Hart, "PowerPoint Presentations: A Speaker's Guide," 486-89.
- Weiss, "Taking Your Presentation Abroad," 519-24.

Leonardo, *Notebooks*:

- *Speech:* "Acoustics," 37-38; "Whether the Spirit Can Speak or Not," 48-50; "Sound and Space,"192-93.
- *Presentation*: "Plans for a Masque," 303-04.

WORKSHOP.

NOV 21: THANKSGIVING BREAK.
NOV 23: NO CLASS.

NOV 28: ORAL PRESENTATIONS.

NOV 30: ORAL PRESENTATIONS.

VII. LEGACY: Evaluation and Debriefing

"Tell me if anything was ever done." *Leonardo*

DEC 05: GROUP DOSSIER DUE.
Class evaluations.

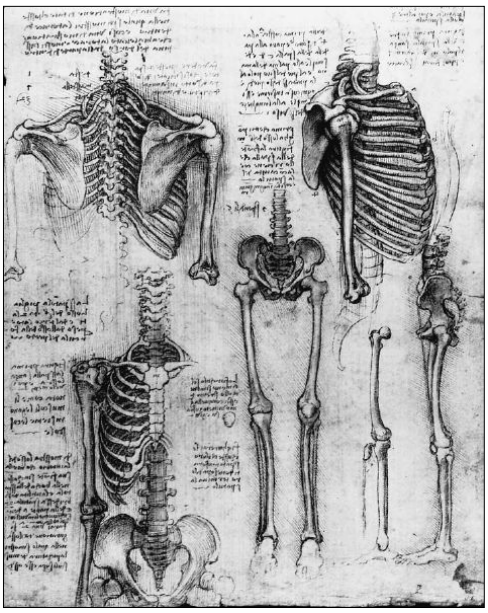
DEC 07: LAST CLASS.

Gelb, *How to Think Like Leonardo*:

- "Leonardo's Legacy," 258-59.
- "*Il Cavallo*: The Rebirth of a Dream," 306-09.

Leonardo, *Notebooks*:

- "Prophecies,"230-39.
- "Life of the Body,"260-63.
- "Life of the Spirit,"263-67.
- "Leonardo's Will," 360-64.



EXAM WEEK Exit interviews and PTW advising.