

- **Technical**
- **Social**
- **Political**
- **Economic**

- **Problem Definition**
- **Constraints**
- **Options**
- **Analysis**
- **Solution**

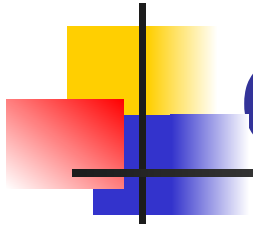
3.003

Principles of Engineering Practice



Communications Laboratory

1. Purpose (5min)
2. Exercise: outline for self-description (10min)
3. Writing Basics (10min)
4. Near-neighbor presentation and Critique (15min)
5. Draft prose (10min)
6. Critique and Revision (15min)
7. Presentations to DVR (30min)
8. Editing/Proofreading text (HW)



Communications Methodology

The Complete Engineer's Skill Set
Technical—Social—Political--Economic

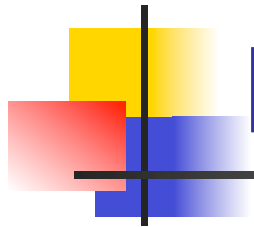
Communications Goal in 3.003: To become a better communicator

How?

- Practice
- Emulation
- Critique

Principles of Communication

- Communication is a system
- Communication is a way of thinking
- Good communication has certain attributes: clarity, balance, coherence
- There are steps in preparing communication: planning, drafting, revising, editing
- Communication is about both medium and message: how you package information



Examples

- Rhythm and focus
 - Refusing to bring the contamination to light would ensure a comfortable life for me, but it would also mean the death of who I am.
- Clarity of meaning
 - Because this is a small town, reaching out to the population would not be extremely difficult.
- Efficiency of word use
 - For this, since I am not in a superior position anymore, I would have to try to get the message out to the community.



Planning

The Complete Engineer's Skill Set
Technical—Social—Political--Economic

Episode 1: Planning

Goals/Questions

- What do I know about my topic?
- What is my purpose for writing?
- Who are my intended readers and how much do they know about my topic?
- How is this task like others I have had before?
- What structure will work best for my topic?

Strategies

- Clustering
- Freewriting
- Conversation
- Brainstorming
- Reading and research on your topic



Drafting and Revising

Episode 2: Drafting

Goals

- Repeat planning questions
- Strive toward accurately rendering your *intentions*

Strategies

- Any or all of those you used for planning.
- Outlining
- Visual Representations of your topic

Episode 3: Revising

Goals

- Repeat planning/drafting questions
- Address Higher-Order Concerns rather than Later-Order Concerns

Strategies

- Any or all of those you used for planning and drafting
- Seeking feedback
- Glossing your text



Editing/Proofreading

Episode 4: Editing/Proofreading:

Goals

- Make corrections in regard to style, wording, correctness.

Strategies

- Editing in several passes with a different focus on each pass
- Reading draft aloud

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3.003 Principles of Engineering Practice
Spring 2010

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