I. Administrative
   A. **Schedule**: Reading, problem set #2, midterm
   B. **Problem set #1**: Will distribute at the end of class
   C. Questions?

II. Fallacies
   A. Fallacies are argumentative flaws. In general, many bad arguments are *fallacious* arguments, or arguments that exhibit a *fallacy* of some sort.

   B. As the authors point out, imagination is really the only limit to fallacious reasoning. Still, we can classify the fallacies into general kinds as a way of orienting ourselves to their character. There are different ways to do this:
      1. Formal/Informal
      2. Material/Psychological/Logical (see handout)
      3. Clarity/Relevance/Vacuity – this is the classification scheme used by our authors

   C. I’ve written a bit on this, if you just can’t get enough of the fallacies: [http://www.webpages.uidaho.edu/crit_think/](http://www.webpages.uidaho.edu/crit_think/)

   D. (5.1, 5.2)

   E. **Question**: can arguments be wrong (unsound, say) without being bad?
III. Fallacies of Clarity

A. These fallacies turn on the fact that words and phrases are often unclear. While this is rarely a problem, the lack of clarity can at times underwrite confusion or enable subterfuge.

B. Things can fail to be clear in various ways.

1. A word like “nice” can be unclear because it can be used in a lot of different ways, many of which admit of degree and the degree is rarely specified. Call this vagueness.
   a. Large animal
   b. Populous state
   c. Andre is a terrific tennis player.

2. A word like “cardinal” can be unclear because it has a number of different meanings, and so it may not be obvious which one is in play. (“I’m a big fan of the cardinal.”) Call this ambiguity.

C. These give rise to two types of fallacies:

   1. Fallacies of vagueness: heaps and slippery slopes
   2. Fallacies of ambiguity: equivocation (5.3, 5.4)

IV. Fallacies of Vagueness

A. Vagueness is introduced into an argument by vague terms, or more precisely, vague concepts.

   1. These concepts do not apply clearly and precisely in all cases.

   2. Thus, vague concepts admit of degrees, and these degrees sanction borderline cases.

B. When a concept admits of degree, we can represent the range of application of these concepts by a scale or dimension, with or without endpoints depending on the case. (E.g., tall, pretty, smart, overwhelming, vague, interesting)

C. These concepts can figure into arguments, and given their nature, they can undermine the effectiveness of an argument. These arguments trade
on the fact that the concept is difficult to apply with certainty in the borderline cases:

1. **Arguments from the Heap:** These arguments are meant to establish that there is no way to arrive at one of the endpoints on along a conceptual dimension, given assumptions about the other.

2. **Conceptual Slippery-Slope Arguments:** These arguments are meant to establish that there is no significant difference between the endpoints. (E.g., [http://www.youtube.com/watch?v=fhErMc0MNSM](http://www.youtube.com/watch?v=fhErMc0MNSM))

3. **Fairness Slippery-Slope Arguments:** These arguments exploit the vagueness of the relevant concepts and the association between their application and judgments of equity or fairness.

4. **Causal Slippery-Slope Arguments** (AKA “Domino Arguments): These trade on the fact that causation occurs in small increments and can in certain cases carry with it negative consequences.

5. **Examples – (5.5)**
   a. **Discussion:** Nobody is tall // There is no difference between being tall and being short

V. **Fallacies of Ambiguity**

A. **Ambiguity** is a term used to signal the presence of multiple meanings. (Linguists use the term ‘polysemy’ if this number exceeds two.) The term ‘ambiguity’ is itself ambiguous. It can mean:

1. The association of more than one meaning with a given term (viz., the ambiguous term).

2. A term/sentence is ambiguous in a particular context just in case it is difficult to tell which of several meanings the term/sentence has in that context and so is misleading.

B. **Types of Ambiguity:**

1. **Semantic:** a term, like ‘bank’ or ‘cardinal’, has more than one lexical meaning associated with it, and can give rise to sentential ambiguity for that reason. (E.g., “I keep my money in a bank.”) In a sentence, there can be multiple semantic ambiguities that contribute to an ambiguous whole: “Mary had a little lamb.”
2. *Syntactic*: a sentence is syntactically ambiguous if it is possible for the words in it to serve different structural purposes, giving rise to different meanings in the process. (E.g., “Flying planes can be dangerous.” “All students want a grade.”)

C. **Fallacy of Equivocation**: this is committed when a person advances an argument that trades on an ambiguity. That is, an argument that contains the same word (or phrase) in two premises, but the word is intended in one sense one place and another sense in the other place. These arguments will not be valid. (5.6, 5.7)

VI. **Definitions**

A. One way to resolve difficulties that arise because of vagueness or ambiguity is through the judicious use of *definitions*.

1. It is important that the use be judicious—it is possible to use them so liberally that all interest in the argument is removed.

2. By defining the terms in dispute, one can avoid slippery slope arguments as well as unseemly equivocation.

B. **Types of Definitions**:

1. *Precising Definition*: a definition of terms meant to draw precise lines so that vagueness is avoided (e.g., ‘city’/‘town’).

2. *Disambiguating Definition*: this is a definition typically offered during the course of a conversation that is meant to indicate which of the possible meanings is intended by the speaker.

3. *Lexical Definition*: a definition for terms supplied by dictionaries.

4. *Stipulative Definition*: a definition supplied by someone who is introducing a new term, such as in technical discourse.

5. *Systematic Definition*: a definition intended to give systematic order or structure with a theory or a subject matter (e.g., relational family terms).