16.06 Principles of Automatic Control
Lecture 1

Important information:

- Active learning if an important part of the class. Come prepared to learn, think, contribute *every* class.
- Text is Franklin, Powell, Emami-Naeni, *Feedback Control of Dynamic Systems*, 5^{th}Edition.

Note: NOT 4^{th}edition.

- Grading

Quiz 1	20%
Quiz 2	20%
Final	30%
Homework	20%
Participation	5%
Staff Assessment	5%

- See collaboration policy. It is *NOT* same the same as Unified. In particular, it is *not* allowed to use solutions from past years from *any* source.
- Generally, late assignments are not accepted.
- May sometimes have to "look ahead" problems where you need to read material to be able to do the problems.

Why automatic control?

Two broad categories of control:

- Manual Control
- Automatic Control

We'll be discussing automatic control almost exclusively. Automatic control systems can be designed to hold an output steady or to track a desired reference signal.

- Regulator: keep output at a steady, known value
- Tracking or servo system: Make output track a reference system

Can further categorize control systems as either *open-loop* or *closed-loop*. Closed-loop controllers (or feedback controllers) compute the control action based on the measured output of the system being controlled.

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