

6.163, Strobe Project Laboratory  
Prof. James Bales

**Lecture 1: Course Introduction**

- 1) OCW
  - a. Looking for someone to take notes- \$12/hr
  - b. Email OCW staff if interested
- 2) Some past strobe projects
  - a. People pay \$1800 for a 4 day condensed version of this course!
  - b. Ideas for the final project/ tricks to get good lighting (cool things to photograph in strobe lab)—see Dr. Bales' power point from today's lecture
    - i. Price Rupert's Drop breaking
      1. Backlighting—strobe directly behind subject (behind graph paper)
        - a. Seeing a silhouette of subject as the image printed
      2. (final project all about imaging of some sort and a measurement of some sort)
      3. LifeSavers sparking
        - a. Made like contact sheets—put LifeSaver directly on film and smashed it
        - b. Measured CPS of LifeSavers
      4. lighting trick—hang strobe from ceiling, with aluminum foil below subject to bounce light up too
        - a. bullet images—bullet shooting through a bar of soap, 4 thick chalk sticks of different colors all in a row
      5. ripples in sheet of glass before it breaks
        - a. camera looking straight into strobe via glass acting as mirror
      6. 3-D *Matrix* style shot of bullet through apple
        - a. Multiple camera work as possible final project
- 3) Handouts
  - a. Syllabus
  - b. Course Overview
  - c. Copyright Agreement
  - d. Goals of Strobe Lab:
    - i. To become more comfortable and efficient working in lab
    - ii. To learn to work well in a team
    - iii. To improve communication skills—communication through written reports, oral reports, and especially images—what makes an image beautiful/aesthetically pleasing?
  - e. Reports due 1 week after lab time
    - i. For me, Wed. 2pm
- 4) Lenses and BCPS Equation
  - a. See notes/handouts from Saturday's training session
- 5) Synch and Delay- Lab 1
  - a. Synch and Delay = a technique used to capture a process as it occurs in a set of photos
  - b. Lab 1: photographing the process of a balloon popping

- c. Must trigger camera synchronous to the event (with a fixed delay mechanism)
  - d. Can allow strobe light to flash after a longer delay to get a photo later in the process
- 6) Meeting in Lab Groups
- a. Determining what makes an "A", "B", and "F" team member
    - i. A- on time, communicates with other group members, willing to do their share of the work, no surprises—asks for help in a timely manner if unable to complete their portion of the work, makes time for the course, is excited about the course
    - ii. B-doesn't do as much work, maybe slightly less energetic about class, tries to help but doesn't not always produce the highest quality of work
    - iii. F- disappears—doesn't communicate with group members at all, doesn't do work, apathetic towards the class and his/her (and the group's) grade...basically the opposite of an "A" team member.