

Today:

Admin

Finish First Assignments

Start Overview: Choices in imaging

Name Table Tents

Put signed Use Agreement, Syllabus Agreement, on piles up front.

WP logins: success?

ITLL orientations: For after-hours access and computer login, attend a 1/2 hr tour. Find out what resources are here, agree to not spill drinks on the keyboards:

[https://itll.colorado.edu/about\\_us/building\\_tours/access\\_orientation\\_tour/](https://itll.colorado.edu/about_us/building_tours/access_orientation_tour/)

You may take an orientation tour Monday-Friday at 5:15pm, or 1:15pm on Sundays. The tour starts in front of the ITLL LaunchPoint on the top floor. Don't forget to bring your BuffCard.

Lecture notes will be posted on the Flow Vis site. Feel free to nag me.

First Assignments

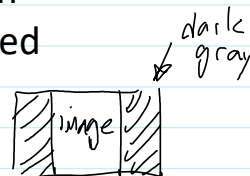
<http://flowvis.org/media/course/initialassignments.pdf>

Have you read this? Questions?

Clouds: There will be two Cloud assignments, with the first due Monday October 8, and the second image due Nov 16. This is to give plenty of opportunity to observe a variety of atmospheric conditions. Images made before Aug 27 2018 will not be acceptable for the Cloud First assignment, and images made before Oct 8 will not be acceptable for the Cloud Second assignment.

Keep notes on time, date, your location and orientation (facing north etc).

All assignments: Make your image uploaded to flowvis.org no larger than 1300px wide, no more than 900 tall. Best to pad width of portrait oriented images.



Overview 1: Topics will be presented iteratively.

Previsualization: Have a goal, think about what you want it to look like.

Make CHOICES:

1. Flow phenomenon: Water boiling? Faucet dripping?
2. Visualization technique: Add dye? See light distorted by air/water surface?

3. Lighting (source of worst image problems)
4. Image acquisition: Still? Video? Stereo? Time lapse? High speed?
5. Post processing, final output. Edit, at least crop the image and set contrast.

1. **Flow phenomenon:** *Why does it look like that?*

What are the forces? = a framework for interpretation of the image  
Minute paper. In groups (3 or so) list all the forces that can act on a fluid.  
Write on a scrap of paper to hand in.

- Gravity
- Buoyant force
- Surface tension
- Pressure (air)
- Friction
- From walls, pressure
- Shear
- Van der Waal
- Thermal gradient
- Electrostatic
- Centripetal
- Magnetic

