# Lab 2 Session 1

February 3, 2026 1:06 PM

Notes

- Fix assignment 1
- Everything on Goodnote?
- Snapshot 1 due Thursday
- Assignment 2 due feb 10, 3 due feb 24 after break

2026-02-03 1:31 PM

Lab 2 Microscopy and Motility

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Table

- Only collaborations in lab not outside (lab notes can be done together but reflections data ect is individual)

Physical image length per pixel calibration:
8 lines, 1168.706
73.044 pixels per line

From slide: 0.01mm per line

Mm/px = 6.845177*10^-5mm *10^3 = 0.06845177 um / px = 68.45177nm/px

Camera model BFS-U3-16S2C-CS

Calculated dilution factor (using prelab method)

20 beads per 1440x1080 pixels x 0.0685um per pixel
= 20 beads per 98.6 x 73.98um x 5um
Volume of image: 36,482 um^3 vs 77,760um^3 = 0.46916x (compared to prelab)
Density Prelab: 2.572*10^8 beads/ml

Density our lab: 1.207*10^8 beads/ml
5.4978*10^-13 g/bead * 1.207*10^8 beads/ml = 6.636*10^-5 g/ml
Initial: 0.005g/ml
Dilution = initial/final = 75.34X