

Microfabrication Lab  
 Final Project  
 Grading Rubric

Name \_\_\_\_\_

Microfabrication; Energy, Materials and Environment. The purpose of the final project and report is (i) to reinforce your understanding of how your micro fabricated device was constructed, and (ii) to investigate the broader impacts of microfabrication processes (economic and environmental).

You are allowed to discuss the paper with your fellow students BUT you must do the calculations and report on your own! Keep a tally and report the amount of time that you have worked on this final project and report.

Reading: NATURE editorial paper and support material; The 1.7 Kilogram Microchip: Energy and Material Use in The Production of Semiconductor Devices, E. D. Williams, R.U. Ayres, and M. Heller, Environmental Science and Technology, October 24th, 2002.

Question 1	Summarize main points of paper (2pt)	5 points
	Discussion (2pt)	
	Organization of written report (1pt)	
Question 2		20 points
	Summarize your project work in a process flow diagram (4pt)	
	Construct a diagram for your class project (similar to that shown in Figure 1 of the paper) (4pt)	
	Calculate the material amount for fabricating your chip (see Figure 2 of the paper) (4pt)	
	Calculate the energy costs for production and use for your chip (see Figure 3 of the paper) (4pt)	
	Discussion and Report writeup (4pt)	
Total		25 points