

Lab 9-12: Project Work

The remaining weeks in the lab will be spent fabricating and testing the projects you have proposed. Important issues in this process are given below:

1. Mask designs must be completed as soon as possible. We will primarily be using masks generated on a high resolution printer. The masks will be printed on an overhead transparency and will all be printed at once. You need to e-mail your mask layout to David Chang-yen at changyen@uofu.net **BY FRIDAY AT 12 NOON**. Your mask layout needs to be in an .eps format (a postscript format). Thus, you can use any appropriate software to generate your mask layout. If your mask features are less than 5 microns, you will need to generate an emulsion mask as done in class. Accordingly, you will need to meet with David to arrange this process. If your mask has structures greater than 70 microns only, you can easily make your masks by printing directly to an overhead using a laser printer or inkjet printer. (Some new inkjet printers give resolution down to about 20 microns). If you are using your own printer or an emulsion mask, you are not constrained by the deadline given above.
2. You will be responsible for all lithography steps in your project. Any steps in your project that require use of advanced tools will be performed by the lab TAs. Accordingly, you will need to schedule your processes on the sheets available in the lab. We will do our best to handle custom “unique” requests, but remember that there are more than 40 projects being prepared and it may be difficult to customize every process to individual specifications. You are welcome to participate, assist, and attend during the time that the process will be performed.
3. You will be assigned a location to keep your wafer so that both you and the TAs can find your wafer when needed.
4. You are welcome to attend any lab section to perform your work. Work outside of scheduled lab times will not be permitted as per standard HEDCO regulations. You (or your advisor) will be charged standard HEDCO rates if you work outside of assigned class periods (since we must conclude that your work not class related).
5. In the event you need a new wafer due to breakage, process failure, or other reason, please contact your lab TA who will assign you a new wafer. Please be careful with your wafers. They are expensive and in limited supply.
6. Your TAs and Dr. Gale are available to assist you as needed. Please ask them any questions you may have before performing your work. If you aren't sure how to handle a given process or situation, please ask. Ignorance leads to disaster.
7. Please observe all safety rules while in the lab and practice good lab skills which include: cleanliness, professionalism, and concern for others work. Remember that what you do in the lab WILL affect the results of others.
8. Make this a good experience for everyone!