# NCF User Policy

## Welcome to the NCF!

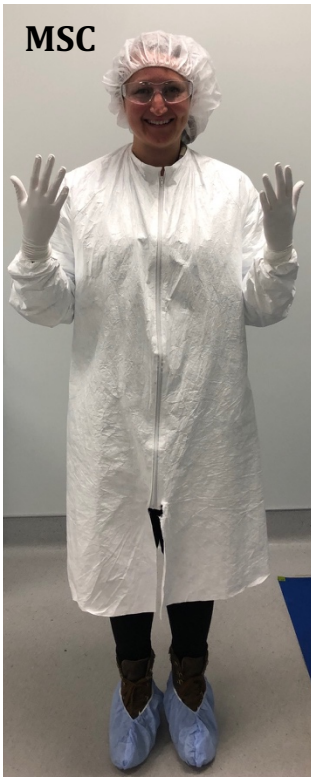
**We look forward to working with you in a safe and productive environment**

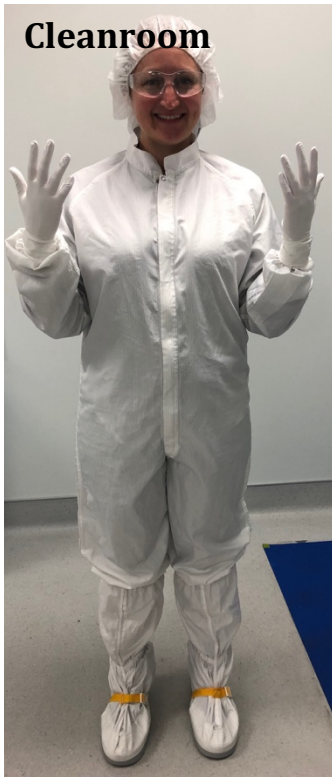
### Gowning Procedure

In order to maintain a Class 100 cleanroom facility, each user must follow an appropriate gowning procedure.

**Material Synthesis Core** (furnace bay): Bouffant cap, blue booties, disposable smock, safety glasses and gloves (*Optional: face mask*)

**Cleanroom**: Bouffant cap, coveralls, full boots, safety glasses and gloves (*Optional: face mask*)




Please launder your coveralls and boots when they are dirty, the NCF has a weekly laundry pickup. Even if you are an infrequent user of the lab, be sure to refresh your coveralls and boots at least once a month.

## Time Keeping

All time spent in the NCF must be logged and billed for the health of the facility. There are two types log-ins that will now be used in FBS. You ***must log-in and log-out*** to one or the other based on the type of equipment.

**(1) Basic cleanroom access (CR_Access) for use of:**

- All wet benches (Acid/Base, Developer, Solvent)
- OPV Glove Box*
- Filmetrics
- Asher (oxygen plasma cleaner)

**This equipment can also be reserved if you plan on using it exclusively*

**(2) Specific Equipment Reservations/Walk-up**

- Raman/PL
- All MSC furnaces
- Diamond CVD
- CNT Deposition
- ECR
- Primo
- Dektak
- Lithography
- OPV Glove Box*

**The equipment Reservations/Walk-Ups *must* include the entire run time of your experiment (8 hour deposition requires an 8 hour reservation).**

The Organic Photo-Voltaic (OPV) Glove Box falls under both categories depending on its use. If the user would like to run their experiments at a specific time without the risk of the system being used by another user, s/he may book a reservation; otherwise, the user can just use the glove box when they log-in to basic **CR_Access**. The one exception for this is if there is a long evaporator deposition running, the equipment ***must*** be reserved to account for the full use of the system.

**Failure to keep accurate time will result in a progression of penalties:**

1st time… Gentle reminder

2nd time… Stern reminder

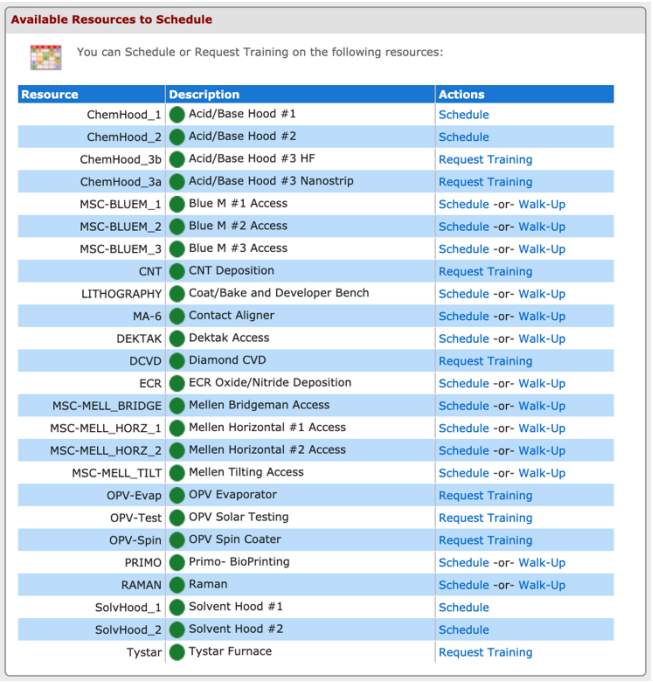
3rd time… Scheduled training to make sure you understand how to use the very simple system

**5th time… Discontinued access to the facility**

***(it will be assumed this is intentional abuse of the facility)***

# Making Reservations in FBS

In order to make a reservation, the user must first be a trained user on that piece of equipment. If you are not currently trained, you can **Request Training**; otherwise, you can **Schedule** or **Walk-up** to reserve time. (See image below)

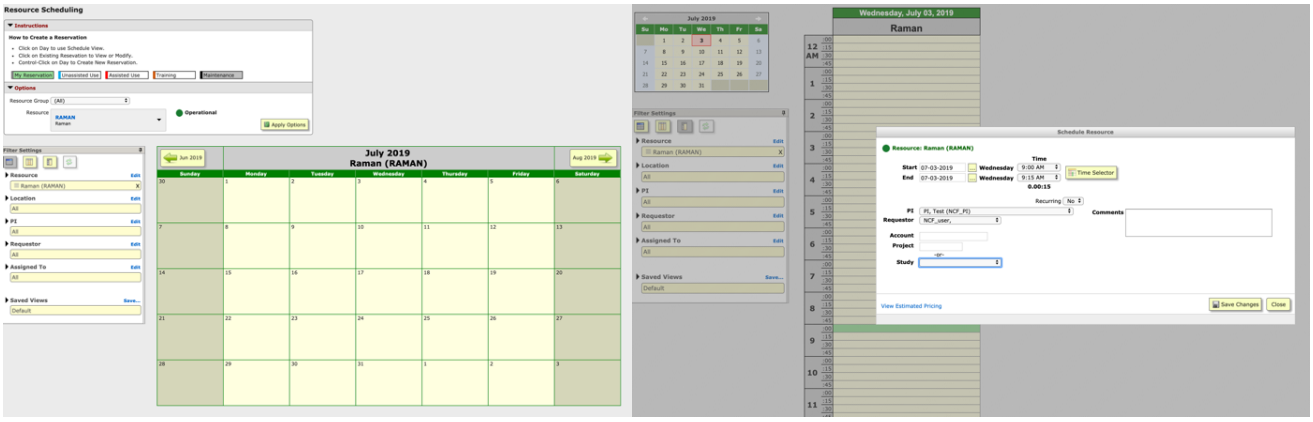


**Available Resources to Schedule**

You can Schedule or Request Training on the following resources:

| Resource | Description | Actions |
|---|---|---|
| ChemHood_1 | Acid/Base Hood #1 | Schedule |
| ChemHood_2 | Acid/Base Hood #2 | Schedule |
| ChemHood_3b | Acid/Base Hood #3 HF | Request Training |
| ChemHood_3a | Acid/Base Hood #3 Nanostrip | Request Training |
| MSC-BLUEM_1 | Blue M #1 Access | Schedule -or- Walk-Up |
| MSC-BLUEM_2 | Blue M #2 Access | Schedule -or- Walk-Up |
| MSC-BLUEM_3 | Blue M #3 Access | Schedule -or- Walk-Up |
| CNT | CNT Deposition | Request Training |
| LITHOGRAPHY | Coat/Bake and Developer Bench | Schedule -or- Walk-Up |
| MA-6 | Contact Aligner | Schedule -or- Walk-Up |
| DEKTAK | Dektak Access | Schedule -or- Walk-Up |
| DCVD | Diamond CVD | Request Training |
| ECR | ECR Oxide/Nitride Deposition | Schedule -or- Walk-Up |
| MSC-MELL_BRIDGE | Mellen Bridgeman Access | Schedule -or- Walk-Up |
| MSC-MELL_HORZ_1 | Mellen Horizontal #1 Access | Schedule -or- Walk-Up |
| MSC-MELL_HORZ_2 | Mellen Horizontal #2 Access | Schedule -or- Walk-Up |
| MSC-MELL_TILT | Mellen Tilting Access | Schedule -or- Walk-Up |
| OPV-Evap | OPV Evaporator | Request Training |
| OPV-Test | OPV Solar Testing | Request Training |
| OPV-Spin | OPV Spin Coater | Request Training |
| PRIMO | Primo- BioPrinting | Schedule -or- Walk-Up |
| RAMAN | Raman | Schedule -or- Walk-Up |
| SolvHood_1 | Solvent Hood #1 | Schedule |
| SolvHood_2 | Solvent Hood #2 | Schedule |
| Tystar | Tystar Furnace | Request Training |

To make a reservation, first click on **Schedule**, which will take you to the calendar for that piece of equipment. Click on the day you would like to schedule, which will bring you to the hourly schedule format. Double click on the desired start time to bring up the scheduling window. From here you can input the start and stop time as well as the Study (account number) that we will use for billing.




When it is time to start your work, there will be a **Start Timer** button you must push under the ”Upcoming Reservations” section of your home screen. Make sure to push this button before you start your work and then the **Stop Timer** once you have finished with your work.

Alternatively, as long as the machine is not being used, you can use the **Walk-Up** feature. Clicking on this will take you directly to the scheduling window and will automatically start the timer. You will still need to schedule a certain amount of time for your reservation by choosing a reservation end time and **must stop the timer** when you have finished with your work or the software will continue to charge the account for the additional time.

### Raman Non-Prime Rate

For the Raman/Photoluminescence Microscope there is a special reduced rate intended to allow for multi-day exclusive-use booking for special configurations. During peak time (9am-9pm) the Raman will be billed at the full rate, whereas during off-peak hours (9pm-9am) the Raman will be billed at 50%. **This special rate is not intended to be used as an alternative booking time** for normal use and must be accompanied by a full day booking in the peak hours. If only off-hours are booked, the reservation will be manually changed to the full rate.

## Additional NCF Policies

### Training New Users

If you are training a group member or any other user in a specific process or on a piece of equipment, there are two ways in which you can clock usage:

(1) Log yourself in and then take the user in as a visitor. We are assuming that you are training while you are performing your own work and the other user is only observing.

(2) Have the new user log-in using FBS and you may enter as a visitor. In this case, they will be working on their own work during the training session and will be charged appropriately.

### Housekeeping

Leave all workspaces (wet benches, table tops, equipment user workspaces, etc.) **clean, dry, and organized**. This includes cleaning up all spills and residues, storing glassware and chemicals, throwing away used wipes and Aluminum dishes, etc. If a bench is not clean when you start a task, you still have the responsibility to leave it clean. If you leave a wet bench in disarray, or leave an unlabeled container on a bench, you can be suspended from the facility.

Please clean the spin-coater lid and bowl after each use as this is a common source of debris on your sample surface. Since there are two bowl liners for the two different resists (AZ and SU-8), feel free to switch out the bowls for your specific application.

## Machine Error Response

Without proper training or posted procedures, users may not clear out errors or try undocumented procedures to get samples out of machines. They must contact the NCF manager for assistance. All issues, whether or not they are your fault, need to be promptly reported to the NCF manager. Mistakes are tolerated and may result in required retraining, but hiding mistakes is immediate grounds for lab suspension.

**System Alarms:** If a system alarms, the NCF manager should be contacted for assistance, either by cell phone if at a reasonable time or by email. Do not attempt to fix the problem unless you have training. After normal staff working hours machines will remain down until the next working day. Please leave a note on the machine that there is a problem with the tool and that the staff has been contacted.

**Equipment Maintenance:** All equipment is maintained by the professional staff. Users are not allowed to remove panels or alter subsystems within the machine unless directed to by staff. Significant electrical dangers including high voltage and high power RF exist within the panels of most machines.

## Containers and Labeling

Chemical containers such as beakers, bottles, etc., must be labeled with contents, date, and ownership (individual or group name). This information can be written on a wipe under the container. **Please do not leave beakers containing chemicals or samples in the fume hoods for longer than 3 days.**

All beakers in use must be labeled with exact contents and ownership (individual or group name). *If it is no longer in manufacturer bottle, it must have a label*. Labels written on cleanroom paper or a wipe are allowed.

Common names of user-mixed chemical mixtures such as “Aqua-Regia”, “RCA-2”, “Piranha” are insufficient. Mixtures must be properly labeled such as “$H_2SO_4$:$H_2O_2$” or “HCl: $HNO_3$” when mixed by users. Premixed chemicals poured from manufacturer bottles may be labeled as on the bottle. “Cr-Etchant” or “Nanostrip” etc. are acceptable for chemical designation.

# … Thank you!!!!