

RSC User Guide

Table of Contents

1.0 [Introduction to the RSC](#)

- 1.1 Obtaining access to the RSC
- 1.2 RSC Safety Class
- 1.3 Key FOB Assignment
- 1.4 Tool Training
- 1.5 Tool usage
- 1.6 Billing
- 1.7 RSC Responsibilities and Liabilities

2.0 [Safety](#)

- 2.1 Fire and Hazardous Gas Detection System.
- 2.2 Safety Glasses
- 2.3 Shoes
- 2.4 Personal Chemicals
- 2.5 User Accessible Areas
- 2.6 Evacuation Routes

3.0 [RSC All Users SOP](#)

- 3.1 Chemical Hood Safety
- 3.2 RSC approved materials and User materials
- 3.3 No Cross Training
- 3.4 After hours facility access

4.0 [RSC Clean Room SOP](#)

- 4.1 Items not allowed in the clean room area
- 4.2 Taking your supplies into the clean room
- 4.3 Acceptable clean room items
- 4.4 Tape
- 4.5 Clean Room Entry and Exit Procedure

5.0 [Procedure Violation and Penalties](#)

- 5.1 Safety Violations

[RSC Afterhours Form](#)

1.0 Introduction to the RSC

1.1 Obtaining Access to the RSC

Visit <https://RSC.aux.eng.ufl.edu/>. Login with your Gatorlink ID and follow the instructions to start the process of obtaining RSC Access.

1.2 RSC Safety Class.

The RSC safety course is required for all persons to become qualified RSC users.

1.2.1 Cleanroom Users - You must complete the RSC Clean Room Safety class before you will be admitted into the clean room. The class lasts approximately 4 hours. Following the online guide to becoming a RSC User and this will generate an email to staff and add you into the queue for safety training. Cleanroom Users are responsible to understand and follow for both "All Users SOP" and "Cleanroom users SOP".

1.2.2 Metrology Users - Metrology Users are those that only use the RSC tools located outside the cleanroom. The general user safety class is still required to become a "metrology user" and access these areas. Metrology Users are responsible to understand and follow the "All Users SOP". Follow the online guide to becoming a RSC User and this will generate an email to staff and add you into the queue for safety training.

1.3 Key FOB Assignment

Access to the cleanroom and the building afterhours requires the use of a key FOB. Once the user has completed RSC safety training and their completed user form is submitted, the key FOB request can begin. Key FOB requests are uploaded twice a week and typically take 7 to 10 business days to complete the entire process.

Cleanroom users will be issued a user ID badge and a key FOB. Metrology users will only be issued a user ID badge. Keys and FOBs to the metrology rooms are available for daily checkout at the RSC reception area.

1.4 Tool Training

Tool (resource) training is performed only by RSC staff. User-User training is not permitted; however, new Users are encouraged to observe senior Users to gain insight to tool operations. Standard training is provided at a discounted rate compared to the standard use rate. Ad-hoc or immediate training (i.e. requests outside the normal training schedule) on a specific tool is available at the non-discounted tool rate. See RSC website for all tool training rates.

Please refer to the Training Calendar on the web site for specific training dates for each tool. Find the date that fits your schedule and request training from the main RSC web page. If the requested tool is not on the training calendar, please comment on your availability in your training request. We try to maintain training within 2 weeks of your request. Your training request is sent by email to your PI for approval. Only after your PI has approved the training request will the request be sent to the RSC staff. Once it reaches the RSC staff, you will receive an email from RSC staff confirming the date.

NOTES:

- Tool training will be performed using a standard sample. If the user requests training to be performed on their sample, the non-discounted training rate will be applied.
- Cancellation of training must be made **24 hours** in advance. Cancellations made with less than 24 hour notice will be considered based on circumstances.

Example of the process of requesting training using the RSC Website**User Interface****(NOTE: the links in this guide are not the same as will be used in the live web site)**

In order to avoid confusion (with actual UF Courses) RSC Courses are labeled 'Training Topics' when presented to users. Training can be managed by users from their User Panel. This portion of the guide provides examples of the process of requesting training on resources. There are three categories of training;

Scheduled training, this type of training will appear on the RSC training calendar on a recurring schedule

Unscheduled training, this type of training does not appear on the RSC training calendar.

Immediate Training, this training type allows the user to schedule a training session in advance of the regularly scheduled session and in advance of the trainers schedule. Please note that there will be additional fees associated with this type of training. The PI may choose to speed up the training process by approving this option.

Once a user logs onto the RSC web site the "User Panel" will be displayed. The User Panel allows the user to manage all of their online tasks from a single point. Explore the page and links to become familiar with the links and functionality. What follows is a walk-through of arranging for training on resources.

User Panel Welcome Cat Testing (nrftest13, NRFID: 7898)

NRF Menu Pending Work Plans -

Billing & Funds Mgmt
 None to List

> PI Panel

Prerequisite Status
> For Equipment Use
> For Training Sessions
> For Service Requests

Funds
 None to List

> My Funding Sources
> Request Funding
> Request & Permission Log

Reservations
 None Scheduled

> My Reservations
> Create New (By Resource)
> Create New (Quick Form)

Training
> My Training Records
> Training Topics
> Training Calendar
> Sign Up & Status Log

Work Plans
> My Work Plans
> Submit a New Work Plan

Service
> Request Service

Training Session Sign Ups				
Name	Start	Instructor	Location	
NRF Safety Training	Wed, Oct. 30, 2013 9:00 AM	Ogden, Alvin	NRF Lobby	Cancel Sign Up

Training Links
 See the next topic for an overview of these pages.

Training Session Sign Ups
 When a user signs up, or is signed up by staff, the session will appear in this section of the user panel. If the session sign up can still be canceled, the cancel link will be visible.

Training Links

My Training Records

This page displays the training records for a user and shows the date submitted, type, trainer, resource, and expiration date. Any expired records will appear highlighted.

User Panel >

My Training Records

Submitted	Type	Trainer	Resource	Expires
Thu, Oct. 24, 2013 11:30 AM	Resource	Ogden, Alvin	Solvent Bench 2	Never
Thu, Oct. 24, 2013 11:30 AM	Resource	Ogden, Alvin	General Acids/Bases Bench-Left	Never
Thu, Oct. 24, 2013 11:30 AM	Resource	Ogden, Alvin	General Acids/Bases Bench-Right	Never
Thu, Oct. 24, 2013 11:30 AM	Safety and Orientation - Cleanroom & Metrology	Ogden, Alvin	None	Never

<< First < Prev. Page 1 of 1. Viewing 4 of 4 Items in 0.266 Seconds. Next > Last >>

Note: Highlighted training records have expired.

Training Topics

This page displays the training topics that are currently set as offered. The user may search the listing and view a list of available sessions.

User Panel > Training Topics >

Training Topics

Click 'Show Sessions' next to the desired training topic to view the available sessions.

Search Topics:

Name	Instructor	
5PT Probe Station Training	Bill Lewis	Show Sessions
Acid Bench JST Training	Bill Lewis	Show Sessions
ALD Cambridge Nano Fiji 200 Training	Bill Lewis	Show Sessions
Asher Anatech Training	Bill Lewis	Show Sessions
Deep RIE STS Training	Bill Lewis	Show Sessions
Dicing Saws Blade Change Training	Bill Lewis	Show Sessions

Training Calendar

Scheduled sessions can also be viewed and joined from the Google training calendar. Details can be viewed by clicking on the Detail View Icon for each day.

User Panel > Training Topics >

Training Calendar

Click on the NRF icon **Nf** to view details or to sign up for session.

Today ◀ ▶ November 2013 Print Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	27 1:30pm Deep RIE STS	28 Nf 9am Ellipsometer J.A. 1:30pm RIE/ICP Trion	29 Nf 9am NRF Safety Trainin 9am SEM JEOL 5700 Tr 1:30pm RIE/ICP Unaxis	30 Nf 1:30pm RTA Steag Trai 3pm NRF Staff Enginee	31 Nf 9am Wafer Bonder EVG 1:30pm Photospectrom	Nov 1 Nf 2
3 Nf	4 Nf 1:30pm Sputter Deposi	5 Nf 1pm E-beam PVD Evap 1:30pm Laser Writer He 1:30pm microRaman H	6 Nf 9am Spin Coater Train 1:30pm PECVD Training	7 Nf 9am Profilometer Dekt 1pm Mask Aligner EVG 3pm NRF Staff Enginee	8 Nf 9am Dicing Saws Train 1:30pm Mask Aligner K	9
10 Nf	11 Nf 9am RIE/ICP Trion Tra 1:30pm Ellipsometer J.	12 Nf 9am RIE/ICP Unaxis S 1:30pm SEM JEOL 5700	13 Nf 9am NRF Safety Trainin 9am RTA Solaris 150 T 1:30pm RTA Steag Trai	14 Nf 9am Photospectromete 3pm NRF Staff Enginee	15 Nf 9am Deep RIE STS Tra 1:30pm Hall Effect Elect	16
17 Nf	18 Nf 9am Mask Aligner Karl 1pm Dicing Saws Train	19 Nf 8:30am Sputter Deposi	20 Nf 9am E-beam PVD Evap 1:30pm Laser Writer He	21 Nf 9am PECVD Training (C 1:30pm Spin Coater Tr 3pm NRF Staff Enginee	22 Nf 9am Mask Aligner EVG 1:30pm Profilometer De	23
24 Nf	25 Nf 1:30pm Deep RIE STS	26 Nf 9am Ellipsometer J.A. 1:30pm RIE/ICP Trion	27 Nf 9am NRF Safety Trainin 9am SEM JEOL 5700 Tr 1:30pm RIE/ICP Unaxis	28 Nf 1:30pm RTA Steag Trai 3pm NRF Staff Enginee	29 Nf 9am Wafer Bonder EVG 1:30pm Photospectrom	30

Events shown in time zone: Eastern Time Google Calendar

Detail View Icon

Tue	Wed	Thu
28 Nf 9am Ellipsometer J.A. 1:30pm RIE/ICP Trion	29 Nf	30 Nf

Detail View

Sessions for 10/30/2013

SEM JEOL 5700 Training

- > Time: 9:00 AM - 10:00 AM
- > Availability: 4 seats of 4
- > Location: NRF
- > Instructor: Bill Lewis

[Sign Up](#)

NRF Safety Training

- > Time: 9:00 AM - 1:00 PM
- > Availability: 3 seats of 6
- > Location: NRF Lobby
- > Instructor: Alvin Ogden

Session Details for Day

Sign Up Link

Sign Up & Status Log

This log displays the user’s training activity. Users can view the status of their training requests and history of their activity.

User Panel > Training Topics >	
Training Sign Up & Status Log	
Date	Action
11/19/2013 4:14:03 PM	Resource Training on the Dicing Saws, ADT was confirmed by Bill Lewis
10/29/2013 11:53:24 AM	Signed up for the Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM
10/29/2013 11:44:45 AM	A permission request was sent to PI Gregory Norton to allow sign up to the following sessions: Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM
10/28/2013 11:54:17 AM	The Acid Bench JST Training Session on Fri, Nov. 8, 2013 2:30 AM has been canceled
10/28/2013 11:49:15 AM	The SPT Probe Station Training Session on Fri, Nov. 1, 2013 3:00 AM has been canceled
10/24/2013 1:15:06 PM	Signed up by NRF Staff for the Acid Bench JST Training Session on Fri, Nov. 8, 2013 2:30 AM
10/24/2013 1:13:58 PM	Sign up approved by PI for the Acid Bench JST Training Request. NRF Staff will now schedule and sign you up for the session.
10/24/2013 1:13:43 PM	A permission request was sent to PI Gregory Norton to allow sign up to the following sessions: Acid Bench JST Training Session
10/24/2013 1:11:58 PM	Signed up by NRF Staff for the SPT Probe Station Training Session on Fri, Nov. 1, 2013 3:00 AM

Example Flows

Scheduled Session

In these examples a user will sign up for a scheduled session for the Dicing Saws course. The user logs in and clicks the Training Calendar link in the Training section of their User Panel:

Funds

- > My Funding Sources
- > Request Funding
- > Request & Permission Log

Reservations

- > My Reservations
- > Create New (By Resource)
- > Create New (Quick Form)

Training

- > My Training Records
- > Training Topics
- > Training Calendar
- > Sign Up & Status Log

Work Plans

- > My Work Plans
- > Submit a New Work Plan

Service

- > Request Service

Your Reservations for Today -

None Scheduled

Your Future Reservations -

None Scheduled

They find a Dicing Saw session scheduled for Nov. 8th, and they click on the Detail View icon. They can now see that there are spots available, so they click on the Sign Up link.

User Panel > Training Topics >

Training Calendar

Click on the NRF icon *Nf* to view details or to sign up for session.

Today ◀ ▶ **November 2013** ▼ Print Week Month Agenda ▼

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28 <i>Nf</i>	29 <i>Nf</i>	30 <i>Nf</i>	31 <i>Nf</i>	Nov 1 <i>Nf</i>	2
	1:30pm Deep RIE STS	9am Ellipsometer J.A 1:30pm RIE/ICP Prior	9am NRF Safety Trair 9am SEM JEOL 5700 1:30pm RIE/ICP Unax	1:30pm RTA Steag Tr 3pm NRF Staff Engine	9am Wafer Bonder E 1:30pm Photospector	
<i>Nf</i> 3	<i>Nf</i> 4	<i>Nf</i> 5	<i>Nf</i> 6	<i>Nf</i> 7	<i>Nf</i> 8	<i>Nf</i> 9
1:30pm Sputter Depo	1pm E-beam PVD Ev 1:30pm Laser Writer 1:30pm microRaman	9am Spin Coater Tra 1:30pm PECVD Traini	9am Profilometer Del 1pm Mask Aligner EV 3pm NRF Staff Engine			
<i>Nf</i> 10	<i>Nf</i> 11	<i>Nf</i> 12	<i>Nf</i> 13	<i>Nf</i> 14		16
9am RIE/ICP Trion T 1:30pm Ellipsometer	9am RIE/ICP Unaxis 1:30pm SEM JEOL 570	9am NRF Safety Trair 9am RTA Solaris 150 1:30pm RTA Steag Tr	9am Photospectrome 3pm NRF Staff Engine			
<i>Nf</i> 17	<i>Nf</i> 18	<i>Nf</i> 19	<i>Nf</i> 20	<i>Nf</i> 21		23
9am Mask Aligner Ka 1pm Dicing Saws Tra	8:30am Sputter Depo	9am E-beam PVD Ev 1:30pm Laser Writer	9am PECVD Training 1:30pm Spin Coater T 3pm NRF Staff Engine			
<i>Nf</i> 24	<i>Nf</i> 25	<i>Nf</i> 26	<i>Nf</i> 27	<i>Nf</i> 28	<i>Nf</i> 29	<i>Nf</i> 30
1:30pm Deep RIE STS	9am Ellipsometer J.A 1:30pm RIE/ICP Prior	9am NRF Safety Trair 9am SEM JEOL 5700 1:30pm RIE/ICP Unax	1:30pm RTA Steag Tr 3pm NRF Staff Engine	9am Wafer Bonder E 1:30pm Photospector		

Events shown in time zone: Eastern Time Google Calendar

Detail View

Sessions for 11/8/2013

Dicing Saws Training

- Time: 9:00 AM - 1:00 PM
- Availability: 4 seats of 4
- Location: NRF
- Instructor: Bill Lewis

[Sign Up](#)

Mask Aligner Karl Suss MA6 Training

- Time: 1:30 PM - 2:30 PM
- Availability: 4 seats of 4
- Location: NRF
- Instructor: Bill Lewis

The user has the option to select additional sessions if desired, however at the moment the user only would like to sign up for this session, so they click the Choose Funding Sources link to continue.

User Panel > Training Topics >

Session Sign Up

Topic Name	Session Date & Time	PI Approval Required	
Dicing Saws Training	Fri, Nov. 8, 2013 9:00 AM	Yes	Remove

If you would like to sign up for additional training sessions, you can add them to the list above by clicking the link below.


[Sign Up for More Sessions](#)

If all training sessions you wish to sign up for at this time are listed above, please click on 'Choose Funding Sources' below to continue to the next step.

[Choose Funding Sources](#)

Home | User Panel | User Setup | Equipment | Policies & Forms | Safety | Contact Us | Logout

© UF-RSC-Nanoscale Research Facility - 1041 Center Drive, POB 116621, Gainesville, FL 32611
 P: 352.846.2626, F: 352.846.2877, Email: nrinfo@mail.ufl.edu
 This page was last updated Thursday, April 04, 2013.
 This page uses Google Analytics (Google Privacy Policy) | Private Policy - Social Security Number Privacy



Here the user may select the funding source to charge. An explanation based on session settings is provided. The user clicks the Sign Up/Request PI Approval link to continue.

User Panel > Training Topics >

Session Sign Up - Select Funding Source

Topic Name	Session Date & Time	Funding Source	PI Approval Required
Dicing Saws Training	Fri, Nov. 8, 2013 9:00 AM	<input type="text" value="Norton - Testing NRF fiscal notice"/>	Yes

Please Note:

- › If the session does NOT require PI approval, or if you are the funding source PI, you will be immediately signed up for any scheduled sessions after clicking on 'Sign Up/Request PI Approval' below.
- › For session sign ups that DO require PI approval, and you are not the PI, a permission request email will be sent to the funding source PI. For scheduled sessions, you will receive a notice by email once the PI approves or denies your request.
- › If your requested session is 'To Be Scheduled', you will receive a notice by email once staff have created and signed you up for the requested session.

Please select the appropriate 'Funding Source' for each session listed above. The selected 'Funding Source' will be billed any training charges.

Once your funding sources are selected, please click on the 'Sign Up/Request PI Approval' button below to submit your requests.

[Sign Up/Request PI Approval](#)

Since the session requires PI approval, a request email was sent to the funding source PI. The following page displays for the user:

User Panel > Training Topics >


Session Sign Up Results

› [Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM](#) - A permission request was sent to the funding source PI. You will receive an email notice once the PI processes your request.

[Return to User Panel](#)

Home | [User Panel](#) | [User Setup](#) | [Equipment](#) | [Policies & Forms](#) | [Safety](#) | [Contact Us](#) | [Logout](#)

© UF-RSC-Nanoscale Research Facility - 1041 Center Drive, POB 116621, Gainesville, FL 32611
 P: 352.846.2626, F: 352.846.2877, Email: nrinfo@mail.ufl.edu
 This page was last updated Friday, April 26, 2013.
 This page uses Google Analytics (Google Privacy Policy) | [Private Policy](#) - [Social Security Number Privacy](#)



The PI receives the following email notice. To approve, the PI clicks link:

Subject: NRF Training Session Permission Request from Cat Testing (nrftest13)

Gregory Norton,

Cat Testing is requesting permission to sign up for the following NRF training sessions:

- Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM

Please click the link below to grant/deny permission to attend and charge sessions to your source(s) of funds.

<https://testnrf.aux.eng.ufl.edu/ccb/pi.asp?key=f286619fefe01ce>

Thank you,
 Nanoscale Research Facility
 University of Florida
<https://testnrf.aux.eng.ufl.edu/>

Remember that these links will be different in the actual web site.

On the following page the PI can enter a new source of funds if necessary, change the charged source of funds, approve/deny the user's request, and optionally send the user a message. Here the PI approves the training buy checking the box, enters a message to the user and clicks Save.

User Panel >

Approval Requests from Cat Testing

Training Session Requests

Cat Testing (nrfstest13) is requesting permission to attend the training sessions listed below.

To give user permission to attend a session, check the box next to the session. To deny permission, leave the box unchecked.

The user selected funding sources appear next to each training request. If desired, an alternative funding source can be selected from the dropdown menu. If the desired funding source does not exist, please click here to enter a new funding source.

Topic Name	Session Date & Time	Req. Type	Funding Source & Rate
<input type="checkbox"/> Dicing Saws Training	Fri, Nov. 8, 2013 9:00 AM	Standard	Norton - Testing NRF fiscal notice - \$20/Session ▾

Message to the User (Optional):

Hi User,|

Please click the 'Save' button below to record your selections.

Note: You will be prompted for Gatorlink authentication if you are not already signed in.

If you have any questions or comments, please email us at gnorton@ufl.edu.

The PI then sees the following confirmation page:

User Panel >

Approval Requests from Cat Testing

Training Session Request Results

> [Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM](#) - The user sign up for this session was successful.

Process complete. It is safe now to close this window.

Home | User Panel | User Setup | Equipment | Policies & Forms | Safety | Contact Us | Logout

© UF-RSC-Nanoscale Research Facility - 1041 Center Drive, POB 116621, Gainesville, FL 32611
P: 352.846.2626, F: 352.846.2877, Email: nrfinfo@mail.ufl.edu
This page was last updated Monday, September 30, 2013.
This page uses Google Analytics (Google Privacy Policy) | Private Policy - Social Security Number Privacy



An email notice has now been sent to the user:

Subject: NRF Approval Request Update

Cat Testing,

Gregory Norton has processed your requests.

Training Session Approval Results

You have been successfully signed up for the following training sessions:

- Dicing Saws Training Session on Fri, Nov. 8, 2013 9:00 AM - Please meet on the Ba'rok (Klingon Bird of Prey) - This session sign up may be canceled any time before Thu, Nov. 7, 2013 9:00 AM.

Session sign ups can be reviewed and managed using the NRF User Panel.

<https://testnrf.aux.eng.ufl.edu/main.asp>

Message from PI: Hi User.

To respond to your PI, simply reply to this message.

Regards,

Nanoscale Research Facility

University of Florida

<https://testnrf.aux.eng.ufl.edu/>

The user can now see and manage their sign up from their User Panel.

The screenshot shows the 'User Panel' interface. At the top right, it says 'Welcome Cat Testing (nrftest13, NRFID: 7898)'. On the left is a navigation menu with sections: 'NRF Menu', 'Billing & Funds Mgmt' (with sub-items 'PI Panel'), 'Prerequisite Status' (with sub-items 'For Equipment Use', 'For Training Sessions', 'For Service Requests'), 'Funds' (with sub-items 'My Funding Sources', 'Request Funding', 'Request & Permission Log'), and 'Reservations' (with sub-item 'My Reservations'). The main content area shows 'Pending Work Plans' (None to List), 'Training Session Sign Ups' (a table with one entry for 'Dicing Saws Training' on 'Fri, Nov. 8, 2013 9:00 AM' by 'Lewis, Bill' at 'NRF' with a 'Cancel Sign Up' link), 'Active TUMI Logins' (None to List), 'Your Reservations for Today' (None Scheduled), and 'Your Future Reservations' (None Scheduled).

Name	Start	Instructor	Location	
Dicing Saws Training	Fri, Nov. 8, 2013 9:00 AM	Lewis, Bill	NRF	Cancel Sign Up

Let's assume now that the user attended the session. Once the session occurs, staff can login and manage training sessions on their User Panel.

Before finalization there is a confirmation page, staff clicks Confirm to finalize the session.

Once finalized the user's training record is entered for the Dicing Saws, the training is billed, and an email is sent to the user:

Subject: NRF Training Update

Cat Testing,

NRF Staff have recorded your completion of the following training:

Type	Equipment	Expiration	Notes
Equipment Training	Dicing Saws, ADT	No Expiration	Use and reservation of this equipment is now permitted.

If you have any questions or comments, please feel free to reply to this email.

Regards,
 Nanoscale Research Facility
 University of Florida
<https://testnrf.aux.eng.ufl.edu/>

Training flow is now complete.

Unscheduled Training Request

In this example a user will request training for the FTIR course by specifying their availability. The user logs in and clicks the Training Topics link in the Training section of their User Panel:

User Panel
Welcome Cat Testing (nrftest13)

- MAIC&PAIC Menu
- Billing & Funds Mgmt**
 - PI Panel
- Prerequisite Status**
 - For Equipment Use
 - For Training Sessions
 - For Service Requests
- Funds**
 - My Funding Sources
 - Request Funding
 - Request & Permission Log
- Reservations**
 - My Reservations
 - Create New (By Resource)
 - Create New (Quick Form)
- Training**
 - My Training Records
 - Training Topics
 - Training Calendar
 - Sign Up & Status Log
- Service**
 - Request Service

- Training Session Sign Ups -
- None to List
- Active TUMI Logins -
- None to List
- Your Reservations for Today -
- None Scheduled
- Your Future Reservations -
- None Scheduled

The user searches for the FTIR training topic and clicks the Show Sessions link:

User Panel > Training Topics >

Training Topics

Click 'Show Sessions' next to the desired training topic to view the available sessions.

Search Topics:

Name	Instructor	
FTIR/FT-Raman/FTIR Microscope Training	Wayne Acree	<input type="button" value="Show Sessions"/>

There are no scheduled sessions available. The user clicks Request Training.

User Panel > Training Topics >

FTIR/FT-Raman/FTIR Microscope Training Sessions

No sessions are currently scheduled

To request a training session at a custom date & time, please click the link below.

The user now enters their availability and clicks Submit.

User Panel > Training Topics >

Request Training

This page allows you to request a custom date and time for a FTIR/FT-Raman/FTIR Microscope Training Session. Please indicate your availability below.

* Please enter your preferred date and times:

The following page allows the user to select additional sessions so they may be processed together. Since the user only desires this one session, they click on Choose Funding Sources.

User Panel > Training Topics >

Session Sign Up

Topic Name	Session Date & Time	PI Approval Required	
FTIR/FT-Raman/FTIR Microscope Training	To Be Scheduled	No	Remove

If you would like to sign up for additional training sessions, you can add them to the list above by clicking the link below.

[Sign Up for More Sessions](#)

If all training sessions you wish to sign up for at this time are listed above, please click on 'Choose Funding Sources' below to continue to the next step.

[Choose Funding Sources](#)

Here the user may select the funding source to charge. An explanation based on session settings is provided. The user clicks the Sign Up/Request PI Approval link to continue.

User Panel > Training Topics >

Session Sign Up - Select Funding Source

Topic Name	Session Date & Time	Funding Source	PI Approval Required
FTIR/FT-Raman/FTIR Microscope Training	To Be Scheduled	<input type="text" value="Norton - Norton testing project 2"/>	No

Please Note:

- > If the session does NOT require PI approval, or if you are the funding source PI, you will be immediately signed up for any scheduled sessions after clicking on 'Sign Up/Request PI Approval' below.
- > For session sign ups that DO require PI approval, and you are not the PI, a permission request email will be sent to the funding source PI. For scheduled sessions, you will receive a notice by email once the PI approves or denies your request.
- > If your requested session is 'To Be Scheduled', you will receive a notice by email once staff have created and signed you up for the requested session.

Please select the appropriate 'Funding Source' for each session listed above. The selected 'Funding Source' will be billed any training charges.

Once your funding sources are selected, please click on the 'Sign Up/Request PI Approval' button below to submit your requests.

[Sign Up/Request PI Approval](#)

The PI approves the training in the same way as above and the user confirmation page is displayed below:

User Panel > Training Topics >

Session Sign Up Results

- > [FTIR/FT-Raman/FTIR Microscope Training Request](#) - MAIC&PAIC Staff have been notified of your training request. You will receive an email notice once you are signed up for a scheduled session.

[Return to User Panel](#)

An email notice of the user's training request is sent to staff. Staff can choose from 3 options. In this example, staff will choose the Create New option. These options are also available on the staff User Panel under the Training Requests section.

Subject: MAIC&PAIC Training Request

MAIC&PAIC Team,

Cat Testing has requested the following sessions:

Topic Name	Requested Datetimes	Request Type	Session Options
FTIR/FT-Raman/FTIR Microscope Training	Thursdays anytime.	Standard	Create New Select Existing Remove

Please click on a session option to process a request, or click the link below to manage these requests on the MAIC&PAIC User Panel.
<https://testmaic.aux.eng.ufl.edu/main.asp>

To contact the user, simply reply to this email.

Major Analytical & Particle Analysis Instrumentation Centers
 University of Florida
<https://testmaic.aux.eng.ufl.edu/>

Staff now enters a date and time for the session and adjusts any session settings (if necessary), then clicks Submit. Once submitted the session is scheduled on the calendar, the user is signed up, and the user is sent a confirmation email.

Subject: MAIC&PAIC Session Sign Up Confirmation

Cat Testing,

You have been signed up by MAIC&PAIC Staff for the following sessions:

- FTIR/FT-Raman/FTIR Microscope Training Session on Wed, Oct. 30, 2013 2:15 PM - Please meet in President Machen's office.

Session sign ups can be reviewed and managed using the MAIC&PAIC User Panel.
<https://testmaic.aux.eng.ufl.edu/main.asp>

Regards,
 Major Analytical & Particle Analysis Instrumentation Centers
 University of Florida
<https://testmaic.aux.eng.ufl.edu/>

The user can now manage the session from their User Panel.

User Panel
Welcome Cat Testing (nrftest13)

MAIC&PAIC Menu
Training Session Sign Ups -

	Name	Start	Instructor	Location	
Billing & Funds Mgmt	FTIR/FT-Raman/FTIR Microscope Training	Wed, Oct. 30, 2013 2:15 PM	Acree, Wayne	Unspecified	Cancel Sign Up
> PI Panel Prerequisite Status > For Equipment Use > For Training Sessions > For Service Requests Funds > My Funding Sources > Request Funding > Request & Permission Log	Active TUMI Logins -				
None to List					
Your Reservations for Today -					
None Scheduled					
Your Future Reservations -					
None Scheduled					

Let's assume now that the user attended the session. Once the session occurs, staff can login and manage training sessions on the User Panel. Since this session has occurred, staff clicks the Finalize link. The finalization of the training is accomplished in the same manner as for scheduled training and the user will receive an email.

Subject: MAIC&PAIC Training Update

Cat Testing,

MAIC&PAIC Staff have recorded your completion of the following training:

Type	Equipment	Expiration	Notes
Equipment Training	FTIR/FT-Raman/FTIR Microscope	Oct. 29, 2014	Use and reservation of this equipment is now permitted.

If you have any questions or comments, please feel free to reply to this email.

Regards,
 Major Analytical & Particle Analysis Instrumentation Centers
 University of Florida
<https://testmaic.aux.eng.ufl.edu/>

Training flow is now complete.

Immediate Training Request

In this example a user will request immediate training for the ALD course by specifying the time and date for the session.

The user logs in and clicks the Training Topics link in the Training section of their User Panel:

User Panel
Welcome Cat Testing (nrftest13)

- MAIC&PAIC Menu
- Billing & Funds Mgmt**
- PI Panel
- Prerequisite Status**
- For Equipment Use
- For Training Sessions
- For Service Requests
- Funds**
- My Funding Sources
- Request Funding
- Request & Permission Log
- Reservations**
- My Reservations
- Create New (By Resource)
- Create New (Quick Form)
- Training**
- My Training Records
- Training Topics
- Training Calendar
- Sign Up & Status Log
- Service**
- Request Service

Training Session Sign Ups -

None to List

Active TUMI Logins -

None to List

Your Reservations for Today -

None Scheduled

Your Future Reservations -

None Scheduled

The user searches for the ALD training topic and clicks the Show Sessions link:

User Panel > Training Topics >

Training Topics

Click 'Show Sessions' next to the desired training topic to view the available sessions.

Search Topics:

Name	Instructor	
ALD Cambridge Nano Fiji 200 Training	Bill Lewis	Show Sessions

The user clicks Request Immediate Training.

User Panel > Training Topics >

ALD Cambridge Nano Fiji 200 Training Sessions

No sessions are currently scheduled

To request a training session at a custom date & time, please click an option below.

[Request Training](#)
[Request Immediate Training](#)

The user now enters when they would like to be trained and clicks Submit.

User Panel > Training Topics >

Request Immediate Training

This page allows you to request a date and time for an immediate ALD Cambridge Nano Fiji 200 Training Session.

Please note: Immediate training is typically twice the rate of standard training.

To request immediate training, please indicate your availability below.

* Please enter your preferred date and times:

The following page allows the user to select additional sessions so they may be processed together. Since the user only desires this one session, they click on Choose Funding Sources.

User Panel > Training Topics >

Session Sign Up

Topic Name	Session Date & Time	PI Approval Required	
ALD Cambridge Nano Fiji 200 Training	To Be Scheduled	Yes	Remove

If you would like to sign up for additional training sessions, you can add them to the list above by clicking the link below.

If all training sessions you wish to sign up for at this time are listed above, please click on 'Choose Funding Sources' below to continue to the next step.

Here the user may select the funding source to charge. An explanation based on session settings is provided. The user clicks the Sign Up/Request PI Approval link to continue.

User Panel > Training Topics >

Session Sign Up - Select Funding Source

Topic Name	Session Date & Time	Funding Source	PI Approval Required
ALD Cambridge Nano Fiji 200 Training	To Be Scheduled	Norton - Testing NRF fiscal notice	Yes

Please Note:

- › If the session does NOT require PI approval, or if you are the funding source PI, you will be immediately signed up for any scheduled sessions after clicking on 'Sign Up/Request PI Approval' below.
- › For session sign ups that DO require PI approval, and you are not the PI, a permission request email will be sent to the funding source PI. For scheduled sessions, you will receive a notice by email once the PI approves or denies your request.
- › If your requested session is 'To Be Scheduled', you will receive a notice by email once staff have created and signed you up for the requested session.

Please select the appropriate 'Funding Source' for each session listed above. The selected 'Funding Source' will be billed any training charges.

Once your funding sources are selected, please click on the 'Sign Up/Request PI Approval' button below to submit your requests.

[Sign Up/Request PI Approval](#)

The user confirmation page is displayed below:

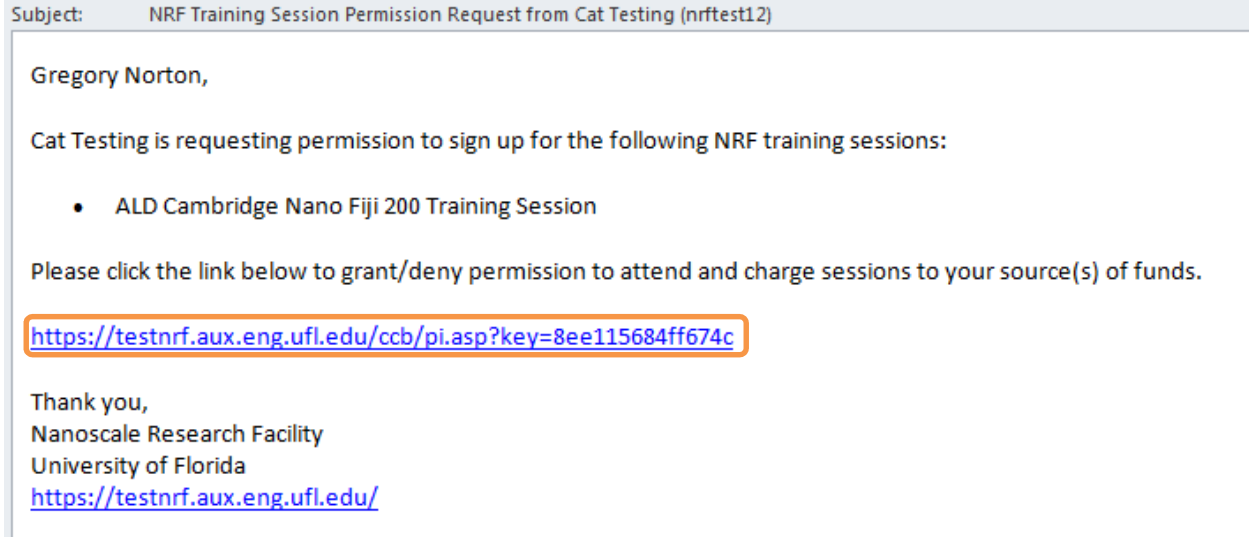
User Panel > Training Topics >

Session Sign Up Results

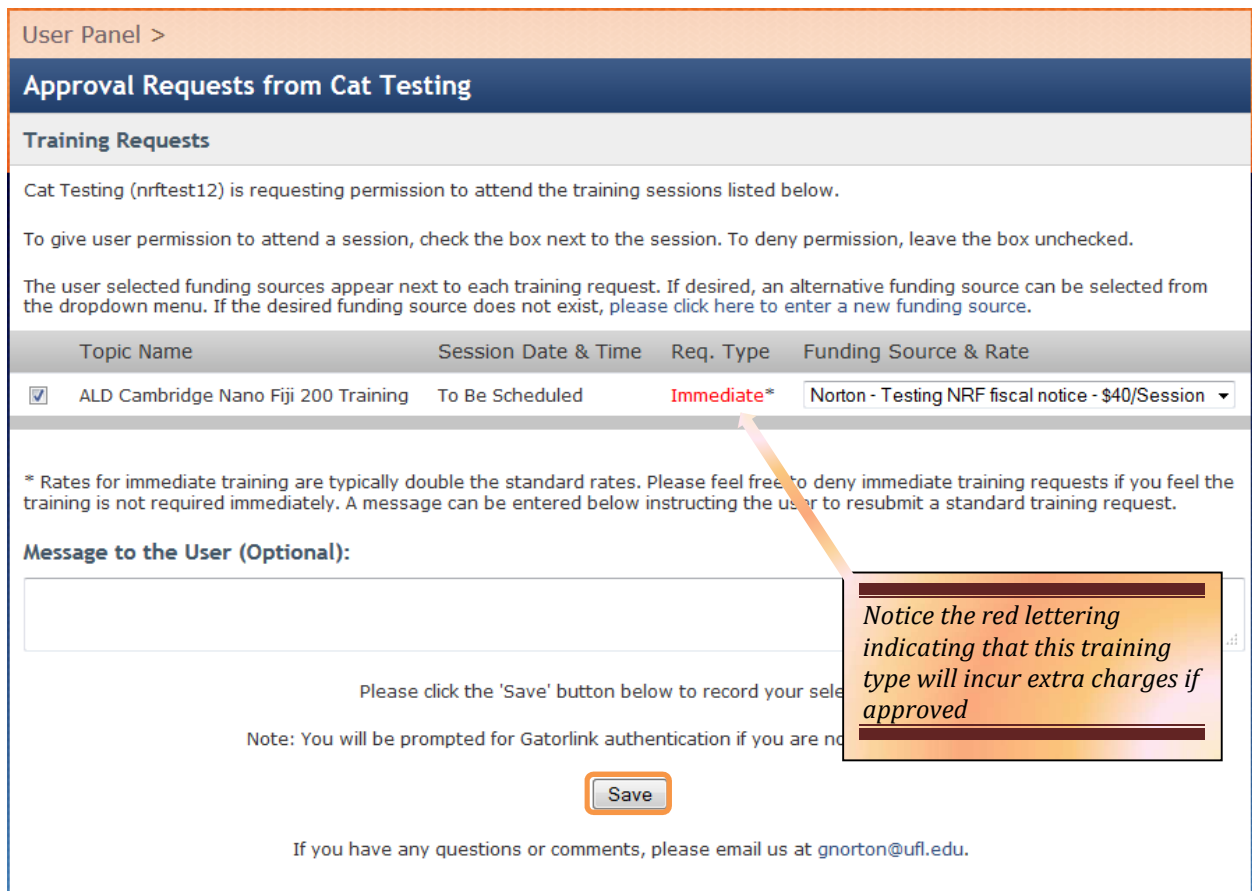
› [ALD Cambridge Nano Fiji 200 Training Session](#) - A permission request was sent to the funding source PI. You will receive an email notice once the PI or NRF Staff process your request.

[Return to User Panel](#)

The project PI receives the following email:



When the PI clicks the link in the email they are taken to a page where they may approve the request. The PI has checked to approve the request and then clicks ‘Save’.



Once saved, the PI is presented with the notice below:

User Panel >

Approval Requests from Cat Testing

Training Request Results

> [ALD Cambridge Nano Fiji 200 Training Request](#) - PI approval was successful. NRF Staff will now schedule this session.

Process complete. It is safe now to close this window.

An email notice is sent to staff and a new session will be created and the user signed up for the session. Once submitted the session is scheduled on the calendar, the user is signed up, and the user is sent a confirmation email.

Subject: NRF Session Sign Up Confirmation

Cat Testing,

You have been signed up by NRF Staff for the following sessions:

- ALD Cambridge Nano Fiji 200 Training Session on Wed, Dec. 25, 2013 2:45 AM - Please don't ever ask for this date and time again. - If at some point you would like to cancel your sign up, you may do so any time before Tue, Dec. 24, 2013 2:45 AM.

Session sign ups can be reviewed and managed using the NRF User Panel.
<https://testnrf.aux.eng.ufl.edu/main.asp>

Regards,
 Nanoscale Research Facility
 University of Florida
<https://testnrf.aux.eng.ufl.edu/>

The user can now manage the session from their User Panel.

User Panel		Welcome Cat Testing (nrftest12, NRFID: 5645)			
~ NRF Menu	Pending Work Plans -				
Billing & Funds Mgmt	None to List				
> PI Panel	Training Session Sign Ups -				
Prerequisite Status	Name	Start	Instructor	Location	
> For Equipment Use	ALD Cambridge Nano Fiji 200 Training	Wed, Dec. 25, 2013 2:45 AM	Lewis, Bill	NRF Cleanroom	Cancel Sign Up
> For Training Sessions	Active TUMI Logins -				
> For Service Requests	None to List				
Funds	None to List				

Let's assume now that the user attended the session, staff can now check off the user as attended and finalize the training. Once finalized the user's training record is entered for the ALD, the training is billed, and an email is sent to the user:

Subject: NRF Training Update

Cat Testing,

NRF Staff have recorded your completion of the following training:

Type	Equipment	Expiration	Notes
Equipment Training	ALD - Cambridge	No Expiration	Use and reservation of this equipment is now permitted.

If you have any questions or comments, please feel free to reply to this email.

Regards,
 Nanoscale Research Facility
 University of Florida
<https://testnrf.aux.eng.ufl.edu/>

Training flow is now complete.

1.5 Tool Usage

Tool usage is separated into two sections; Reservations and TUMI operation. The reservations are useful to reserve a tool for your use. The TUMI records resource use time and allows access only to qualified trained users. Both reservations and TUMI are extremely useful and must be managed properly to avoid excessive charges.

NOTE: When making a reservation and using a resource, be sure to use the same project for both. Using different projects for reservation and TUMI login will create two separate transactions

- 1.5.1 Reservations -** Tool reservations are made on the web site by clicking >>“Resources/Equipment” >>select the tool >> click the “nrf” logo at the bottom of the date.

Reservation Creation

Making a reservation is recommended but not always necessary. The following tools must always be reserved: Kurt Lesker Sputter, PVD Ebeam Evaporator, Heidelberg Laser Writer, EVG Mask Aligner, Cambridge ALD, SMI MOCVD. If you use a tool without a reservation you may need to give the tool up if another User with a reservation shows up to use the tool. Of course, surrender the tool when it makes sense, i.e. don't stop the tool in the middle of a deposition, exposure, etc. If disputes occur, contact Staff for assistance.

Please make your reservation for the length of time appropriate for your process/characterization. Examples of the reservation pages of the website are shown below.

Reservation Editing/Stopping

If your process run is finished before the end time of your reservation, edit the “stop” time of your reservation. From the main RSC menu click “My Reservations” and click the “stop” link next to the reservation. This will reset the end reservation time as the current time. You may also use the “edit” link to add time to your reservation if needed to insure your time on the tool.

Reservation Cancellations

Missed reservations will generate a missed reservation processing fee of \$14.00. It is wise to cancel reservations before they go unused. From the main RSC menu click “My Reservations” and click the “cancel” or “delete” link next to the reservation. Please include a comment when prompted.

PLEASE NOTE: The reservation establishes a user’s right to access a tool and this reservation blocks other users from creating overlapping reservations.

- 1.5.2 TUMI Operation-** The hourly usage rate for each tool can be found on the web site in the details for each tool. Each tool in the RSC is interlocked by a login computer at the end of each bay or laboratory called the “TUMI” System. You must log on to the TUMI to enable the tool. The TUMI tracks your usage time until you log off.

When something go wrong:

- Immediately log off and include a comment. The comment should include a description of what happened and make it clear that the tool is “Down”.
- Place a note on the tool that it is “Down”. Include a comment if your sample is still inside the tool. Cleanroom paper can be found throughout the cleanroom and in the gown room.
- Notify Staff that the tool is down and let them know if your sample is still inside the tool. Send Staff an email if outside normal work hours.
- Edit your reservation.

If you log on to a tool and it is not ready (i.e. your targets are not loaded into the sputter system), log back off and provide a comment so the transaction can be flagged. It is a good practice to check the website for reservations, targets and tool status prior to logging in via the TUMI.

Log off the TUMI when your process run is complete. If your process run is done before the end time of your reservation, edit the “stop” time of your reservation. From the main RSC menu click “My Reservations” and click the “stop” link next to the reservation. This will change the end reservation time to the current time.

Examples of the RSC website and TUMI software interface are shown below.

TIP - Usage time is charged in 15 min increments. If you plan to use a tool multiple times in a short period (i.e. less than an hour), it’s usually best to stay logged onto the tool since you are charged in 15 minute increments. There is a minimum charge of 15 minutes each time you log on.

Example of RSC Resource Page

Search Site

NANOSCALE RESEARCH FACILITY

A College of Engineering Research Service Center - NRF / MAIC&PAIC

- [Home](#)
- [User Panel](#)
- [New User](#)
- [Equipment](#)
- [Policies & Forms](#)
- [Safety](#)
- [Contact Us](#)
- [Logout](#)

[User Panel >](#) [Equipment >](#)

Dicing Saws- ADT - Status: Available



Current Status: Available

External Affiliated: \$60.00/Hour

External Non-Affiliated: \$80.00/Hour

Internal Standard: \$40.00/Hour

Building: NANO (0070)

Room: Device Assembly & Processing (122)

In Cleanroom: No

Fully automatic programmable dicing saw

Latest Status Log Entry

Jan 6, 2014 - Resource Status Up - maint complete

Capabilities Training **Calendar** Contacts Docs Status Log More

To select the time for your reservation, or to view/contact the creator of a reservation, click on the NRF icon *Nf* in the calendar below.

Reminder: unused portions of reservations incur a resource transaction charge. Missed reservations incur a processing fee. Please manage your reservations wisely.

Today ◀ ▶
Week Month Agenda ▾

	Sun 1/19	Mon 1/20	Tue 1/21	Wed 1/22	Thu 1/23	Fri 1/24	Sat 1/25
5am			<i>Nf</i>	<i>Nf</i>	<i>Nf</i>	<i>Nf</i>	<i>Nf</i>
6am							
7am							
8am							
9am							
10am							

The Capabilities tab outlines the operational capabilities of the machine. The Training tab lists the future scheduled training on the resource. The Calendar tab displays the reservation calendar and allows the management of reservations. The Docs tab will display links to Important documents associated with the resource. The status log displays a history of status changes and modification associated with the machine entered by the staff and users.

Examples of Reservation Calendar from RSC website

NANOSCALE RESEARCH FACILITY
 A College of Engineering Research Service Center - NRF / MAIC&PAIC

Home User Panel New User Equipment Policies & Forms Safety Contact Us Logout

User Panel > Equipment >

Dicing Saws- ADT - Status: Available

Current Status: Available
External Affiliated: \$60.00/Hour
External Non-Affiliated: \$80.00/Hour
Internal Standard: \$40.00/Hour
Building: NANO (0070)
Room: Device Assembly & Processing (122)
In Cleanroom: No

Fully automatic programmable dicing saw
Latest Status Log Entry
 Jan 6, 2014 - Resource Status Up - maint complete

Capabilities Training **Calendar** Contacts Docs Status Log More

To select the time for your reservation, or to view/contact the creator of a reservation, click on the NRF icon *Nf* in the calendar below.

Reminder: unused portions of reservations incur a resource transaction charge. Missed reservations incur a processing fee. Please manage your reservations wisely.

Today [Navigation] Week Month Agenda

	Sun 1/19	Mon 1/20	Tue 1/21	Wed 1/22	Thu 1/23	Fri 1/24	Sat 1/25
9am			Nf	Nf	Nf	Nf	Nf
10am							
11am							
12pm							
1pm							
2pm							

Detail View
 1/23/2014

10 am
 11 am
 12 pm

The reservations are indicated as blue blocks of time on the calendar; clicking on the NRF logo at the top of the column will produce a popup allowing the user to select a start time for a reservation. Incidentally, clicking on a red highlighted block in this popup will allow a user to send a message to the person that made that reservation. This is handy for letting the someone with a pending reservation know that you may encroach on their time for example.

* Start Date:

* Stop Date:

Start:

Stop:

User:

Work For:

Additional Info:

Project:

Resource:

Fill in the fields and click submit, your reservation should appear on the calendar as a blue block and also be posted on the user panel as an immediate reminder of the reservation upon logon.

Examples of the TUMI user interface

To use a tool

Step 1: Enter your NRF PIN

Step 2: Validate

Step 3: Enter your GatorLink password

Step 4: Select /check the project

Step 5: Click on the row of the tool

Tool	Status	Notes
E-Beam Lithography, Raith 150	Available	Click this row to log on
Electron microscope, JEOL 5700	Available	Click this row to log on
Spin Coater, Headway, E-Beam Bay	Not Available	
Spin Coater, Laurell, E-Beam Bay	Not Available	

To logoff a tool

Step 1: Enter your NRF PIN

Step 2: Validate

Step 3: Enter your GatorLink password

Step 4: Click on the row of the tool

Step 5: Enter comments and click OK

Tool	Status	Notes
E-Beam Lithography, Raith 150	Available	Click this row to log on
Electron microscope, JEOL 5700	In Use	Select to log off
Spin Coater, Headway, E-Beam Bay	Not Available	
Spin Coater, Laurell, E-Beam Bay	Not Available	

1.6 Billing

The invoicing for the RSC is performed monthly and reflects the transactions incurred during the previous month.

Published Rates are developed in accordance to the guidelines that is applicable to an educational business activity requirements available at the following link:

<https://www.fa.ufl.edu/departments/auxiliary-accounting-educational-business-activities/>

For regulatory compliance, all billing at the RSC must be based upon measured and documented utilization. All services rendered will be invoiced at the published rates that are applicable during the period of performance. Services may not be invoiced without applying approved published rates.

1.6.1 Transactions

Transactions include:

- Clean room entry fees (daily)
- Tool (resource) charges
- Consumables
- Training
- Staff time
- Processing Fees

- Cleanroom entry fee – This is a daily entry fee of \$15.00 and is designed to recover the cost of the cleanroom entry items (gloves, booties, hairnets,...)
- Tool Charges - The transaction time for tool (resource) use is determined by the TUMI log start time and the TUMI log stop time, rounded up to the nearest 15 minute increment. This time is then multiplied by the tool rate to determine the tool charge. The current tool rates (per hour) are listed for each tool on the RSC website.
- Consumables – A consumable charge is applied to track able supplies provided by the RSC. Examples of consumable charges are precious metals, bare Si wafers, lithography mask blanks, ALD precursor materials, and wafer holders.
- Tool Training – A training fee is applied for each tool. The standard training fee is determine for each instrument and is based upon the fraction of the tool rate, a fraction of the staff time and an approximate training time required for the tool. Each tool has a specific training rate. The 'ad-hoc' training rate is determined by the full tool rate, full staff time and average training time based on historical logs that are annually reviewed for updates,. If the required 'ad-hoc' training time extends beyond the estimated training time, a separate transaction will be charged for the additional toll time and staff time.

Tool training rate = $0.5 * (\text{staff labor rate}) + 0.33 * (\text{instrument use rate})$

- Staff time – The current rate for staff time is \$50.00 per hour billed in 15 minute increments.
- Processing fees – see the section below.

1.6.2 RSC Soft CAP policy

This section describes a “soft cap” for the College of Engineering Research Service Centers (RSC).

A. Eligibility

Only internal University of Florida users are eligible. To be eligible for the soft cap, a project account must possess a valid internal Chartfield for an active contract or grant. Chartfields that are not related to research contracts/grants such as returned overhead (211) and foundation funds (171) do not qualify, unless tied to a faculty startup package. Faculty startup commitments are eligible, but cap eligibility must be approved by the COE Dean’s office. Additionally, cap eligibility of all industry-sponsored contracts and grants (209) paying less than the full IDC rate must be approved by the COE Dean’s office. Projects that originate from unrestricted gifts/donations will generally not be approved.

B. Soft Cap Limits

For each eligible project account, the monthly soft cap limit is \$1200 per project for all qualifying charges. There is no “per user” cap. For contracts/grants that involve multiple PI’s, the soft cap applies individually to each sub-project account (typically each PI would have their own project account in Peoplesoft). The soft cap is calculated based on charges accrued during each UF fiscal quarter (not tied to project award start/end dates).

C. Soft Cap Subsidy Rate

For regulatory compliance, all RSC charges must be paid. Whereby a subsidy is provided the invoice will be paid as follows:

- 20% of the normal internal rates for qualified charges will be paid by the associated account in accordance to the transaction log.
- 80% of the cost will be subsidized by other unrestricted funding.

D. Qualifying Charges

The soft cap limit and subsidy rate only apply to the following direct charge item:

- Instrumentation/tool time on micro/nano fabrication related tools. The “soft CAP” does not apply to characterization tools.

The soft cap limit and subsidy rate do not apply to:

- Entry/access fees
- Consumable surcharges (e.g. precious metals, wafers, mask blanks, wafer holders,...)
- Training
- Technician time
- Processing Fees

Only qualifying charges accumulate toward meeting the soft cap limit. Non-qualifying charges do not count toward reaching the soft cap limit and are billed on a separate invoice.

1.6.3 RSC processing fees

- 1) Missed Reservation Processing Fee - this fee is \$14.00. This fee is applied to any completely unused reservation.
- 2) Unused Portion of Reservation Processing Fee – this fee is \$14.00. This fee is applied to any unused portion of a reservation greater than 15 minutes. During normal tool use with a reservation, an unused reservation portion of greater than 15 minutes at either the beginning of the tool use or at the end of the tool use will initiate the unused reservation fee.

1.6.4 RSC External Rates

The RSC has a tiered rate system for external (non UF researchers) users.

External Academic – all external academic users are charged 1.5x the current UF user rate.

Government Institutions – all U.S. government laboratories and entities are charged a rate of 1.5x the current UF user rate.

Industrial users – a 2.0x multiplier is applied for all non-affiliated industrial users in the RSC on tools related to micro/nano fabrication. The characterization tools are set to separate rates for the non-affiliated industrial users.

Affiliated Industrial Partners – a 25% discount applies for an UF-Affiliated Company and these are defined as one of the following:

- RSC Industrial Affiliate Member
- UF Innovation Hub tenant
- UF Sid Martin Biotechnology Incubator resident
- UF Center of Excellence for Regenerative Health Biotechnology (CERHB) resident
- Licensor of closely related UF technology[†] (a license option does not count)
- Sponsor of a UF Research Agreement on closely related project[†]

[†] Requires review and approval by RSC Advisory Committee

Please note:

The external multiplication factors apply to tool/instrument time and cleanroom entry fees, not to staff/technician time. The multiplication factors do not apply to user training, process fees and direct consumable charges (e.g. precious metals, ALD gasses, etc.); these prices are the same for all users.

1.7 RSC Responsibilities and Liabilities

The RSC will:

- maintain the tools, processes and user facility to the best conditions as we are able to provide.
- supply Standard Operation Procedures (SOPs) for all process tools and provide adequate training and guidance for sample processing.
- provide basic process recipes for the tools and will provide guidance to processes.
- stand behind and support each separate process step in a process flow.
- provide a full credit for an individual process step when the process malfunctions are due to RSC staff errors, tool faults or facility failures/alarms.
- provide notices when a tool status changes via the users UF Gatorlink email address.
- enforce the safety policies of the University of Florida and the RSC

The RSC will not be:

- held responsible/liable for process malfunctions that are the result of an user error in a process recipe or user error during tool operation.
- held responsible/liable for providing a credit for an entire process sequence when the process sequence is ruined by one or more malfunctions of a process step(s) that are a part of the entire process sequence, regardless of the cause of the process step malfunction.
- held responsible/liable for providing a credit for a sample(s) damaged by one process step or by a process sequence, regardless of the cause of the process step malfunction.

2.0 Safety

All safety information provided by RSC Staff, including this document and the RSC Safety Training class is supplemental to the UF EH&S Lab Safety Program. It is your responsibility (with the guidance of your Principle Investigator) to read and conform to the EH&S UF Laboratory Safety Manual located at <http://webfiles.ehs.ufl.edu/LabSafe.pdf> and the EH&S UF Chemical Hygiene Program located at <http://webfiles.ehs.ufl.edu/program.pdf> at all times while using RSC facilities. The UF EH&S web site can be found at <http://www.ehs.ufl.edu/>. All UF EH&S Training must be done BEFORE entering the RSC Facility.

Process equipment specific Safety Instructions are included at the beginning of each Process Equipment SOP and will be covered by the hands on training provided for each tool by RSC Staff. RSC Equipment SOP's are located at <https://RSC.aux.eng.ufl.edu/safety/sops.asp>

2.1 Fire and Hazardous Gas Detection System.

- 2.1.1 **GENERAL.** There are flashing white strobe lights and voice speakers for audible announcement of alarm conditions (Fire and/or gas detection). If you hear an alarm message over the speaker system AND see the white flashing strobes, IMMEDIATELY stop all activity and exit the building. Gather outside the building at the main entrance/stairway on the West side of the building. If you are in the clean room, proceed directly out of the gowning room, through the lobby, and out the West entrance doors. ***Do not stop to remove your cleanroom garments.***
- 2.1.2 **POST ALARM GATHERING.** After you have evacuated from the building and gathered at the main entrance/stairway, do not leave the area until everyone has been accounted for. If you have knowledge of the incident or any helpful information please step forward and speak to one of the staff members, UPD officers, or firefighters. You can re enter the building only when you hear an 'All Clear' message from a staff member or firefighter.
- 2.1.3 **CLEANROOM HAZARDOUS GAS ALARMS.** The facility was designed with separate air handling and exhaust systems for the cleanroom, isolating it from the rest of the building. If a gas leak is detected in the cleanroom, only the cleanroom and north service hallway are evacuated. The alarm message over the speaker system and white flashing strobes will activate only in these areas. Each tool in the cleanroom using hazardous gas has orange strobes near the tool on the bay and chaise sides. These strobes will flash to alert you the tool or area the gas leak has been detected. If you are in the cleanroom or north service hallway, follow the procedures outlined in 2.1.1 and 2.1.2. If you are in the office areas or lab areas, you do not need to evacuate and can continue working.
- 2.1.4 **MAINTENANCE NOTIFICATIONS.** There are also gas sensors located in the exhaust ductwork at each tool and gas cabinet. If gas is detected within the exhaust ductwork, but not in the room itself, the tool will shutdown, and the orange strobes for that tool will flash. A warning message will sound over the speaker system to alert staff of the problem. **THE WHITE STROBE LIGHTS WILL NOT FLASH.** You are not required to evacuate the area and may continue working.

**REMEMBER—IF YOU SEE THE WHITE STROBE LIGHTS FLASH—
IMMEDIATELY EVACUATE.**

2.2 Safety Glasses

Safety glasses must be worn at all times in the clean room. The only exception will be when looking through microscope objectives. Safety glasses are also required in many of the RSC laboratories located outside of the cleanroom.

2.3 Shoes and street clothes

Sandals, high heels or open toed and open heeled shoes are prohibited inside the clean room and the entire RSC facility. Your shoes must completely cover your feet. Short pants, skirts and dresses may not be worn while handling hazardous liquid chemicals.

2.4 Personal Chemicals

You may not bring chemicals or substances of any type into the clean room or RSC User Lab without approval of RSC Staff. Please make an appointment with Staff if you would like to use a non RSC approved substances. If approved, you will be shown where to store the substances inside the clean room.

ABSOLUTELY NO CHEMICALS MAY BE STORED INSIDE YOUR CLEAN ROOM SUPPLIES BASKET.

ABSOLUTELY NO CHEMICALS MAY BE LEFT NEAR EQUIPMENT (INCLUDING WET HOODS) INSIDE THE CLEAN ROOM WITH OUT SPECIFIC STAFF APPROVAL AND SIGN OFF. VIOLATORS WILL LOSE ACCESS TO THE CLEAN ROOM.

2.5 User Accessible Areas

Users may only access the blue highlighted laboratories and spaces and the green highlighted “process bays” inside the cleanroom. See the colored floor plane on the following page. You may not access the service areas which are highlighted yellow. There are service areas inside and outside the cleanroom.



Entering the service area without permission of the RSC staff will cause your RSC access privileges to be revoked. This policy is in place to protect Users and the equipment and is strictly enforced.

2.6 Evacuation Routes

The emergency evacuation routes are shown on the floor plan drawing below and are highlighted in red. Two of the cleanroom evacuation routes pass through service areas that are normally off limits to users. These evacuation routes are to be used as secondary evacuation routes. The primary evacuation route for the cleanroom is the main gown entrance. The secondary evacuation routes are to be used in the event that the gown room entry is not accessible.

For all evacuation routes, the building gathering point is on the outside main building steps (west side of building). The service drive/parking lot is to remain free of evacuees in the event emergency vehicles need to gain access.



3.0 RSC All Users SOP

3.1 Chemical Hood Safety and Procedures

3.1.1. Chemical Hood Facts

Laboratory fume hoods are designed to protect you by providing an enclosed work area that has an air barrier between you and the hazardous materials you work with in the hood. The fume hood directs airflow to carry harmful contaminants away from you toward the rear of the hood and out through the exhaust duct.

Fume hood airflow velocities are relatively low (approximately 100 feet per minute) and airflow can be easily disrupted. Avoid making rapid movements while working in a fume hood and avoid walking close to a fume hood that is being used by a coworker.

Working with the sash at the proper level provides protection against inhalation of hazardous vapors, chemical splashes and splatters, fire, or explosion. The sash should be opened only as far as necessary to access your work.

3.1.2. Personal Protection Equipment (PPE)

The following is a list of personal protection equipment required for use of any hood when working with acids or bases.

- Full length vinyl apron with attached sleeves
- Long chemical resistant gloves
- Full face shield

Lack of PPE use is very dangerous and will result in suspension of access to the RSC.

3.1.3. Best Practices for Chemical Hood Safety

1. Before starting any chemical work in a hood (or anywhere else), be sure to have the following in place:
 - user contact information and date on a visible note, wipe or cleanroom paper with chemicals listed. THE FOLLOWING IS AN EXAMPLE OF THE FORM THAT RSC PROVIDES (THE ABSENCE OF THIS FORM DOES ***NOT*** RELEASE THE USER FROM THE RESPONSIBILITY OF PROVIDING THIS PROCESS INFORMATION)

Process Setup Schematic Documentation

Name / User Number: John Doe Extended Process authorization _____

Date / Time: 13 Sept 12 @ 1300 Projected end date and time: 15 Sept @ 1200

Contact Info: doe.j@oak.edu CP#352.0551212 Staff Initials: AWO

Schematic Labeled Drawing of Process Bench Setup

General acid Bench

- waste bottle(s)
- all required samples
- sample containers
- proper forceps for sample handling
- rinse water
- wipes
- any other required supplies

Retrieving items during the processing can create accidents and spread contamination.

2. Know where the closest spill kit and wash stations are located.
3. Chemicals should be placed no closer than 6 inches from the front opening of the fume hood. Placing them closer to the front opening interferes with the airflow and reduces the level of contaminant protection for individuals working at the fume hood.
4. When possible, work in an area providing secondary containment within the hood.
5. Place heating units at least 12 inches behind the sash opening.
6. Place equipment so that it does not block airflow to slots or vents in the baffle plate at the back of the hood. When possible, elevate bulky equipment to allow air to flow under the equipment, as well as around and over it.
7. Minimize the quantities of materials that might be involved in a fire or explosion by limiting the amount of chemicals used in the hood.

3.1.4. Warnings

1. Do not lean into the hood to work with hazardous chemicals. This negates the protection the hood provides against inhalation of hazardous vapors.
2. Do not use fume hoods to evaporate hazardous wastes. This practice is illegal. It violates the Clean Air Act and is punishable by large fines.
3. Do not store chemicals inside a fume hood.
4. Run all equipment underneath the hood airfoil, along the front edge of the fume hood, to external electrical outlets. In an emergency the sash can be closed completely and cords can be unplugged without reaching into the hood or creating the potential for sparks inside the hood.
5. Gas, vacuum and water hoses that are required to operate equipment used inside the hood should be routed under the airfoil, along the front edge of the fume hood, so the sash may be closed completely. It will also permit disconnection of equipment in the event difficulties occur with an experiment.

3.2 RSC Approved Materials and User Material

3.2.1 You may not bring chemicals or substances of any type into the clean room without approval of RSC Staff. All RSC Approved materials will have a MSDS posted at <http://RSC.aux.eng.ufl.edu/safety/msds.asp> . If the MSDS for the material you would like to use is not listed you may submit a “New material Request Form” found at <http://RSC.aux.eng.ufl.edu/safety/default.asp>. Click and download the “MS Word” file “New Material Request Form”. Fill out the form and follow instructions on the form.

3.2.2 If you need to bring a container of your approved material into the clean room, notify RSC Staff and fill out the Chemical log in/out sheet located in the RSC Gowning Room. Staff will let you know where to store the bottle inside the clean room. **NO USER CHEMICALS MAY BE STORED INSIDE YOUR GROUP BASKET.**

3.2.3 Personal use chemicals/substances that have been approved by RSC Staff may be stored only in the appropriate chemical storage location. RSC Staff will show you where.

3.3 No Cross Training

Users may not train peer Users without permission from a RSC Staff member. You may not operate any equipment in the RSC just because a fellow group member showed you how. Observation is OK. Users will never be allowed to “Qualify” other Users on any equipment.

3.4 After Hours Clean Room and Lab Access

The default access for all RSC users is Mon.-Fri., 8:00am to 5:00pm. Working beyond these hours requires the User to have obtained after hour access from RSC staff. This access is provided after the User submits the after hour access form and it is reviewed and approved by RSC staff.

- 3.4.1** After hours is defined as weekends, UF holidays and from 5PM to 8AM Mon.-Fri.
- 3.4.2** Users may request after hours clean room access if they have no documented Procedure Violations as described in section **5.0**. The form is located at the end of this document.
- 3.4.3** After hour access does not include the following equipment and processes:
 - a) Red Tagged Material
 - b) Acid Benches
 - c) Acids and strong bases
 - d) Any process that requires the Buddy System
- 3.4.4** Each User that enters the clean room after hours must have authorization i.e. a fellow user may not follow you into the clean room.

Any user found to be working during the after hour period without after hour access will be asked to leave the RSC facility and will have RSC access suspended.

4.0 RSC Clean Room SOP

4.1 Items not allowed in the clean room area:

- **Regular paper , wood based paper products**
- Laptop Computers
- Chewing gum or Tobacco products
- Facial make up
- Lab tissues, tissues, cardboard, books, and magazines.
- Styrofoam products.
- powders
- Erasers, pencils, felt-tipped pens (other than Sharpie markers).
- Anything that can easily shed particles or aerosolizes; i.e., anything that may serve as a source of particles.

4.2 Taking your supplies into the clean room.

- 4.2.1 All items entering the clean room must be wiped down with a clean wipe before entering. 2-Propanol or DI water bottles and wipes are provided in the gown room.
- 4.2.2 A basket to hold your samples and supplies will be provided and are located in the gown room. You may not bring your own container into the clean room. Only small sample boxes or wafer containers are allowed.
- 4.2.3 Your supply basket may be stored inside the clean room in the basket provided. Space on a wire rack will be provided for your basket inside the clean room. See RSC Staff for directions. If you bring your supplies out of the clean room, return the basket to the gown room.
- 4.2.4 **ABSOLUTELY NO CHEMICALS MAY BE STORED IN YOUR CLEAN ROOM GREEN PI BASKET OR NEAR EQUIPMENT.**

4.3 Acceptable Clean room items:

- Clean room notebooks and clean room paper. Single sheet clean room paper is provided.
- Your samples and tweezers, in clearly labeled small boxes.
- Pens (preferably, ball-point).
- Materials with smooth, hard surfaces such as plastic, which can be easily cleaned with moist wipes.
- Cell phone or PDA only if it is wiped down each time you enter the clean room

4.4 Tape

The only tape that will be allowed in clean room is polyimide tape. If you absolutely must use another type, discuss it with RSC Staff. Do not leave tape stuck to the tables and equipment. Please remove it when you leave.

4.5 Clean Room Entry and Exit Procedure

Day use personal lockers located outside the gown room. They are for **DAY USE ONLY**. Place items such book bags, hat, coat, umbrella and any other unnecessary street garments. To use the locker, place you items inside the locker and enter any 4 digit code of your choosing. The locker will be locked until you re-enter that same 4 digit code. If you leave your items for more than one day, they may be discarded. When your work is complete, leave the locker unlocked for the next user.

No one is allowed to follow you inside the gowning room without swiping their FOB. If you see someone entering without swiping their FOB, please notify RSC Staff.

Absolutely no FOB sharing is allowed between Users. If your FOB is not working, see the RSC Reception Desk for help.

Cleanroom entry procedure:

1. Use the shoe brush cleaner by pushing on the top handle and pushing your foot through the brushes, toe first.
2. Put on blue shoe covers provided. Do not step on the tacky mat without blue booties on your feet.
3. Put on a white hair bonnet. Tuck all hair inside the bonnet.
4. Swipe your FOB key across the FOB reader. **YOU MUST SWIPE YOUR FOB EVEN IF THE DOOR TO THE GOWN ROOM IS ALREADY OPEN.**
This must be done so that we know you are in the clean room in the case of an emergency. A daily clean room access charge is also applied once every 24 hours. A new day starts at 12AM.
5. Put on a clean hood and facial veil. If a veil type facial cover is not yet available for your hood type, use a white beard cover over your nose and mouth.
6. Put on a clean room jumpsuit. Gather arms before placing your feet inside jumpsuit. Don't allow the suit to touch the floor.
7. Put on your safety glasses.
8. Put on clean booties. Use the lean rail as shown in the gowning video.
9. Put on gloves last.
10. Clean any items you're taking into the clean room and place them in the red basket provided.
11. For safety reasons, no sandals or open-toed shoes (Section 2.3).

While in the clean room, keep your hands away from your face and safety glasses. Facial oils will easily transfer to the gloves and subsequently to the clean room equipment and your sample.

When you are ready to leave the clean room **PICK UP ALL OF YOUR PERSONAL ITEMS BEFORE YOU LEAVE.**

When exiting the clean room remove garments in the reverse order.....1. booties
2. jump suit
3. Hood. Place booties in the bootie holder located at the bottom of the gown rack. Do not snap your booties around the jump suit hanger. Drape your hood around the bottom of the gown hanger.

The blue booties and hair net should remain in place until you have exited the gown room. Once outside the gown room, these can be removed and discarded.

Note: all gowns will be pulled from hangers once per semester and sent out for laundry service. Notices for gown removal will be posted on the gown room entry sliding doors. If your gown, hood and boots have been removed, please use new items located on the wire racks in the gown room and mark the hanger sheet accordingly, indicating your user number, hanger number, and date you obtained the gown.

5.0 Violations and Penalties

5.1 Safety Violations

All RSC safety rules and equipment operation procedures must be followed without exceptions.

- 5.1.1** Violations of safety and equipment procedures will be documented by RSC Staff. RSC Staff reserves the right to revoke User privileges based on the severity of the violation. Three documented violations will automatically cause loss of all RSC privileges.
- 5.1.2** Users that witness unsafe operations such as other users not wearing proper PPE or performing improper equipment procedures should immediately notify RSC Staff via telephone. If Staff cannot be contacted immediately, ask the User to stop what they are doing until Staff can be contacted.
- 5.1.3** Users that find an unsafe condition such as unlabeled containers inside an acid bench should immediately notify RSC Staff.

Example Safety Violations

- Not wearing safety glasses (or other appropriate eyewear per a specific equipment SOP)
- Entering the clean room without swiping your FOB or sharing your FOB with someone else.
- Wearing open-toe shoes or sandals
- Bringing regular paper or notebooks into the cleanroom
- Not wearing proper Personal Protective Equipment per specific equipment SOP
- Using unapproved chemicals in any equipment
- Improper chemical waste disposal
- Not cleaning up after equipment and workspace use.
- Leaving unlabeled experiments, especially those that pose a risk to others
- Not labeling chemical names, contact info, date, and time when leaving chemicals unattended
- Taking open containers of chemicals out of the fume hood
- Failure to store chemicals in the assigned storage container or storage cabinet
- Entering the cleanroom "service areas".
- Leaving metallic items, such as keys or tools, around the magnetics equipment
- Bringing a food or drink into the clean room or laboratory
- Violating the after hour policy



Staff use contents check list			
	Badge issue		AHA
	Key Issue		Metrology
	Photo		2 nd FI Lab
	Non user access		

Nanoscale Research Facility
1041 Center Drive
PO Box 116621
Gainesville, FL 23611-6621

ID Badge, Key Card and Key Request Form for Building 0070

SECTION 1: Key Card Request

Name: _____
 E-Mail: _____
 Home Address: _____
 Gatorlink username: _____
 UF ID# (Please print clearly) _____

Personal Phone: (____) _____ Cell ome

Required Access: Cleanroom NRF resource Labs (Rooms 122,125,127)
 2nd Floor Labs (Complete Section 4-Key Request)
 Room #'s _____

 SECTION 2: University of Florida (what category are you)

Faculty - Staff? NRFUF MAIC / PAIC Student

Department: _____
 Gatorlink username: _____
 Work Phone: (____) _____
 Office Address: _____
 Principal Investigator: _____

If you require Cleanroom access and/or use of other RSC user facility resources provide your NRF User # _____

 SECTION 3: External customers NRF User# _____

Outside Industry Outside Academic/Government

Company Name: _____
 Work Phone: (____) _____
 Justification/Affiliation: _____
 Work Address: _____

SECTION 4: Key Request

Request Key(s) to the following rooms: _____

Principal Investigator _____ PI Signature _____

Once the required authorizations are received, your Key Card and/or Key will be ordered. You will receive an email notification when they are ready to be picked up at the RSC reception area. This form will be available for you to sign below upon pickup.

***** Office use only *****

Please read the following statement about your Key Card and sign below:

The KEY CARD is for your access to the Nanoscale Research Facility (NRF). This is a secure building. Entry using this FOB records your name and the time of entry. You must swipe your KEY CARD each time you go through a secured door even if the door has been opened by someone else. By accepting this KEY CARD you assume responsibility for its proper use, and for others who accompany you into NRF. It is not to be loaned to another person and shall be returned to NRF when your affiliation has ended.

I have received my Key Card on this Date: _____

Recipient Signature: _____

Staff Signature: _____ Date: _____

Key Card# _____ Key Card Access Levels: _____

Please read the following statement about your Key(s) and sign below:

I, the undersigned, acknowledge receipt of the keys designated below. I also agree not to loan, misuse, modify or alter these keys. The keys must be returned to NRF when your affiliation has ended. I understand that a violation of this agreement may render me and/or my Principal Investigator liable for the expense of re-keying the affected areas and the suspension of access to your student transcripts if applicable.

Room Number Key Number Quantity Date Received Date Returned

		1		
		1		
		1		
		1		

I have received my Key(s) on this Date: _____

Recipient Signature: _____

Staff Signature: _____ Date: _____

RSC After Hours Request Form

After hours is defined as weekends, UF holidays, and 5PM to 8AM Mon – Fri.

Please print and fill out this form and drop it off at the RSC Reception desk.

This form must be submitted by 5PM Wednesday to obtain access for the upcoming weekend.

Name _____ Date _____

NRF ID# _____

Email address _____

You will be notified by email or verbally if approved.

1. List all process steps performed after hours that include the use of chemicals or gases. If you need to use additional chemicals or gases in the future you are responsible for submitting an updated version of this form for approval.

2. Do you need access to RSC Equipment outside the cleanroom? _____
If yes, list the equipment name(s) and room(s)

3. I understand that no red tagged materials or processes and equipment defined in section 2.9 may be used after hours.

4. I understand every User entering after hours must swipe their personal FOB to access the clean room.

Users Initials here _____

Staff Approval _____ Date _____

FOB enabled date _____

The form will be kept on file at the RSC Reception desk.