

## Nanotechnology Workshop for Community College Educators

August 8-9, 2018

Research Triangle Nanotechnology Network (RTNN, www.rtnn.org)

Monteith Research Center, North Carolina State University

## <u>Day 1</u>

8:30 am – 9:00 am	Breakfast
	ASSIST room, MRC 454
9:00 am – 9:15 am	Introductions
	Maude Cuchiara, Manager, Research Triangle Nanotechnology Network (RTNN)
9:15 am – 9:45 am	Introduction to Cleanroom Operation
	Nicole Hedges, Business and Education Manager Engineer, NCSU Nanofabrication Facility (NNF)
9:45 am – 10:15 am	Window Tour of Cleanroom
	Phil Barletta, Director of Operations, NCSU Nanofabrication Facility (NNF)
10:15 am – 10:30 am	Break
10:30 am – 11:30 am	Overview of Nanofabrication Equipment and Processes
	Nicole Hedges
11:30 am – 11:45 am	Break
11:45 am – 12:15 pm	Photolithography Demo Lab
	Maude Cuchiara
12:15 pm – 1:00 pm	Lunch
	ASSIST room, MRC 454
1:00 pm – 2:00 pm	The Optics of Gallium Nitride
	Phil Barletta



2:00 pm – 3:45 pm Fabrication of GaN-based devices I

NNF Staff

Photolithography

Plasma etch

4:00 pm – 5:00 pm Wrap Up/Discussion/Q&A

Day 2

8:30 am – 9:00 am Breakfast

ASSIST room, MRC 454

9:00 am – 9:30 am Review and prep

Maude Cuchiara

9:30 am – 11:30 am Fabrication of GaN-based devices II

NNF Staff

Metallization

Anneal

In-lab characterization

11:45 am – 12:15 pm Analytical Instrumentation Facility (AIF) tour

Roberto Garcia

12:15 pm – 1:00 pm Lunch

ASSIST room, MRC 454

1:00 pm – 2:00 pm Measurement of GaN devices

Phil Barletta

2:00 pm – 3:00 pm Incorporating nano into STEM curricula

Individual activity, brainstorm ideas with RTNN staff,

prepare proposal for Kickstarter program

3:00 pm – 3:15 pm Break



3:15 pm – 4:30 pm Incorporating nano into STEM curricula

Share ideas with group

4:30 pm – 5:00 pm General discussion/Q&A/Review/Evaluations

Phil Barletta (Director of Operations, NNF), cdonley@email.unc.edu, 919-513-1976

## **Contact Info:**

Maude Cuchiara (Manager, RTNN), <a href="maude\_cuchiara@ncsu.edu">maude\_cuchiara@ncsu.edu</a>, 919-619-2209

Nicole Hedges (Business and Education Manager, NNF), <a href="mailto:nchedges@ncsu.edu">nchedges@ncsu.edu</a>, 919-515-2809