

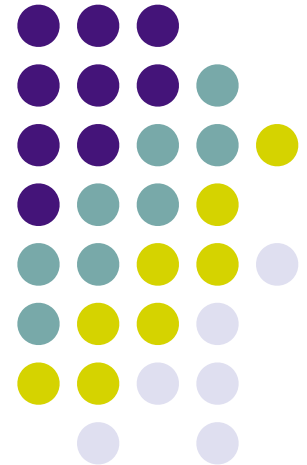
An Brief Introduction to SCCC's Nanotechnology Program

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Union College



Background – About Me



- Grew up in Burnt Hills, NY
- Did my undergraduate studies at Simmons College in Boston, MA
 - Research under Dr. Rich Gurney
 - Studied soft lithographic techniques and surface functionalization
- Went to Columbia University for Graduate School
 - Studied functional nanomaterials with Drs. Nick Turro, Jeff Koberstein, and Stephen O'Brien.
- After Graduate School, I worked at AMRI as a large scale synthetic organic chemist



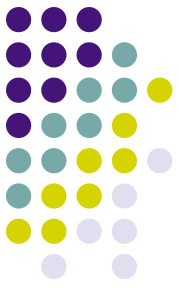
Background – About SCCC's Program



- The nanotechnology program started at SCCC as a collaborative effort between SCCC, Union College, and SuperPower.
- Received a grant from the New York State Senate to renovate lab space and purchase equipment.
- SCCC's program is focused on training technicians.



Currently



- When I joined SCCC last year, we had 6 nanotech majors.
 - Now have 36!
- We have a lot of equipment for a small school! We have a SEM, AFM, sputtering systems, vacuum systems...
- The program is in the process of being redesigned.



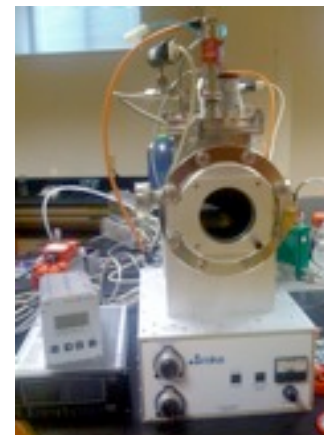
SEM



AFM



Sputtering/Microscope



Thin Film Deposition

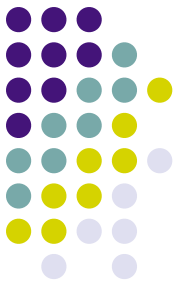


Vacuum

Updated Program Curriculum:



Course	Name	Credits
CHM 121	General Chemistry I	4
CHM 122	General Chemistry II	4
PHY 153	Physics I	4
PHY 154	Physics II	4
MAT 129 or Higher	Algebra II w/Trig or Higher	3-4
MAT 147	Statistics	3
CIS 221	Advanced Computer Applications	3
CIS Elective	Programming or CAD	3-4
ENG 123	College Composition	3
ENG 211	Technical Writing	3
ELT 110	Electrical Circuits I	4
ELT 121	Electrical Circuits II	4
NMT 150	Introduction to Materials Science	3
NMT 152	Introduction to Nanoscale Materials	3
NMT 225	Introduction to Vacuum Science	4
NMT 254	Semiconductor Manufacturing & Technology	3
NMT 252	Integrated Nanotechnology Lab	2
NMT 280	Introduction to Thin Film Deposition	4
Elective	Social Science Elective	3



How you can contact me

- E-mail: cabrert@sunysccc.edu or tabrera207@yahoo.com
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- Up close and personal: CST office #200

I always want to hear your ideas!