



NSC Nanotechnology Lab Access

Equipment Access: NSC students, academic users, and industry users may operate the characterization and fabrication equipment in the NSC Nanotechnology Lab *only after filling out and signing* both the North Seattle College Nanotechnology Lab User Agreement and Intellectual Property Rights Policy and completing Staff-approved training. Training is mandatory and has a corresponding fee as listed in the following NSC Nanotechnology Lab Fee Structure. During user training, one prototype sample from the user can be imaged or fabricated. Alternatively, standard samples can be provided by Nanotechnology Lab Staff. As listed in the NSC Nanotechnology Lab Fee Structure, Student interns need to undergo Staff-approved training but no fee is charged.

Once training has been completed and documented, academic and industry users will need to pay a Daily Access Fee for entering the lab. An hourly operation rate for each instrument is listed on the following page and is charged in addition to the Daily Access Fee.

NSC Students – Defined as full- and part-time NSC students and NSC alumni of the Nanotechnology AAS degree or Nanotechnology certificate program. Students must be enrolled during the quarter of equipment use. Students in paid and unpaid internships are granted the NSC student rate. The Nanotechnology Lab Fee Structure incentivizes use of the instruments by NSC students in internships or as part of student projects.

Academic Users – Defined as full- and part-time students in matriculating programs as well as graduate students, instructors, and professors at educational institutions not listed above. This user category includes persons in the Seattle College District (other than NSC), University of Washington, Seattle University, Seattle Pacific University, Shoreline Community College, Edmonds Community College, Highline Community College, and other educational institutions.

Industry Users – Defined as any anyone outside the categories of **NSC Students** and **Academic Users**. The **Industry Users** category includes employees of companies granting internships to NSC students. Industry Users who use NSC students to operate the Nanotechnology Lab instruments pay the discounted NSC student rate.

Staff Support – As part of preparatory training, NSC Nanotechnology Lab Staff will provide clear and detailed training procedures, standard operating procedures (SOPs), and user manuals for the equipment/instrument used in training. *Minor* informal training and assistance will be provided by the Nanotechnology Lab Supervisor or other Nanotechnology Lab Staff at no additional charge; however, extensive assistance, co-development, sample preparation, and procurement of materials will incur the corresponding Engineering hourly rate.



NSC Nanotechnology Lab Fee Structure

Effective: January 10, 2016

User Type:	NSC Students	Academic	Industry
Daily Access Fee	\$0.00	\$20.00	\$50.00
<u>SERVICES</u>			
Training (per instrument; flat fee for 2-4 hours)	\$0.00	\$50.00	\$75.00
Engineering (hourly rate)	\$0.00	\$60.00	\$100.00
<u>HOURLY OPERATION RATES: CHARACTERIZATION</u> <i>(30 MINUTE MINIMUM, PRO-RATED IN 15 MINUTE INCREMENTS)</i>			
Atomic Force Microscope (AFM) – <i>Nanosurf EasyScan2</i>	\$30.00	\$45.00	\$90.00
Dynamic Light Scattering (DLS) – <i>Malvern Zetasizer Nano ZS</i>	\$15.00	\$30.00	\$45.00
Four Point Probe – <i>Lucas Labs S-302</i>	\$15.00	\$30.00	\$45.00
Goniometer – <i>AST Products VCA Optima</i>	\$15.00	\$30.00	\$45.00
Laser Scanning Confocal Microscope – <i>Olympus Fluoview FV10i</i>	\$45.00	\$75.00	\$125.00
Profilometer – <i>Bruker Dektak XT</i>	\$15.00	\$30.00	\$45.00
Scanning Electron Microscope (SEM) – <i>Aspex EXplorer w/Gresham Energy Dispersive Spectrometer (EDS)</i>	\$45.00	\$75.00	\$125.00
Solar Simulator – <i>Solar Light 16S 300W UV</i>	\$20.00	\$30.00	\$60.00
<u>HOURLY OPERATION RATES: FABRICATION AND SAMPLE PREPARATION</u> <i>(UNLESS NOTED OTHERWISE: 15 MINUTE MINIMUM, PRO-RATED IN 15 MINUTE INCREMENTS)</i>			
3D Printer (incl. 1.75mm PLA filament) – <i>MakerBot Replicator2</i>	\$30.00	\$60.00	\$110.00
Carbon Coater – <i>Cressington 108carbon/A</i>	\$10.00	\$20.00	\$30.00
Laser Cutter (materials extra) – <i>Epilog Zing16</i>	\$20.00	\$30.00	\$60.00
Plasma Etch (Argon) – <i>Technics Hummer VI</i>	\$40.00	\$60.00	\$120.00
Spin Coater – <i>Chemsols CSS-05</i>	\$15.00	\$30.00	\$45.00
Sputter Coater (Au or Au/Pd target) – <i>Technics Hummer VI</i>	\$42.00	\$65.00	\$130.00
Ultrasonic Cleaner (Sonicator) – <i>Branson 2510</i>	\$10.00	\$15.00	\$30.00
Vacuum Oven – <i>Fisher Scientific 281A</i>	-	-	-