	URnano Machines	Hourly Rate	Rate with Help
	Metrology - Wilmot Lab		
SWIPE WL	Metrology - Wilmot Lab Wilmot Prep Rm 216 Entrance Fee Per Day		\$12.00
	Tier 2		
SEM	Scanning Electron Microscope	\$160.00	\$310.00
	Zeiss-Auriga SEM/FIB		
TEM	Transmission Electron Microscope	\$160.00	\$310.00
	Tier 3		
FIB	Focused Ion Beam used along with SEM	\$160.00	\$310.00
EBL	Electron Beam Lithography	\$160.00	\$310.00
	50 kV Elionix ELS-S50EX	¢100100	<i><b>Q</b></i> <b>U U U U U U U U U U</b>
	Tier 4		
AFM	Atomic Force Microscope	\$55.00	\$205.00
UIR	Nicolet Nic-Plan IR Microscope	\$55.00	\$205.00
	uIR microscope and Magna 470 IR spectrometer		
	Tier 0		
DSP	Denton Sputtering Tool	\$30.00	\$180.00
LADD	Ladd Evaporator	\$30.00	\$180.00
CPD	Critical Point Dryer	\$30.00	\$180.00
SBT	SBT Plasma Cleaner/O2 asher	\$30.00	\$180.00
	SBT Tripod polisher, saw & polishing wheel	\$30.00	\$180.00
TRIPOD UMT	Ultramicrotome	\$30.00	\$180.00
UMT	Ultramicrotome Cleanroom Tools - Goergen Basement Lab		\$180.00
	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day		
UMT SWIPE CLN	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools	\$30.00	\$180.00 \$24.00
UMT	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day		\$180.00
UMT SWIPE CLN AJA	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool	\$30.00	\$180.00 \$24.00 \$262.50
UMT SWIPE CLN	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition	\$30.00	\$180.00 \$24.00
UMT SWIPE CLN AJA	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech	\$30.00 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition	\$30.00	\$180.00 \$24.00 \$262.50
UMT SWIPE CLN AJA ALD PVD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event \$112.50	\$180.00 \$24.00 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4	\$30.00 \$112.50 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O2-CH4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Dicing Saw	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES DICER	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Disco DAD3221	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES DICER	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Disco DAD3221         Cross Section Polisher         JEOL ion mill IB-19530CP	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES DICER XSP	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Disco DAD3221         Cross Section Polisher         JEOL ion mill IB-19530CP	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES DICER	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Disco DAD3221         Cross Section Polisher         JEOL ion mill IB-19530CP	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50
UMT SWIPE CLN AJA ALD PVD PVD RIE YES DICER XSP	Ultramicrotome         Cleanroom Tools - Goergen Basement Lab         Cleanroom Entrance Fee Per Day         Tier 1 - Vaccum Deposition Tools         AJA Sputtering Tool         Atomic Layer Deposition         Cambridge NanoTech         PVD 75a Lesker Hybrid Sputter-Evaporation Tool         Overnight Pumping Surcharge (after 5pm)         PVD 75b Lesker Straight Sputtering Tool         Overnight Pumping Surcharge (after 5pm)         Reactive Ion Etcher Blue Ar-O 2-CH 4         South Bay RIE-2000         CVD Plasma Oven         Yield Engineering Plasma Oven         Disco DAD3221         Cross Section Polisher         JEOL ion mill IB-19530CP	\$30.00 \$112.50 \$112.50 \$112.50 \$225/event \$112.50 \$225/event \$112.50 \$112.50 \$112.50 \$112.50 \$112.50	\$180.00 \$24.00 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50 \$262.50

LZRWR	Mictotech Laser Writer		\$55.00	\$205.00
FILM	Filmetrics		\$55.00	\$205.00
LITHO	Lithography Bench with Spinners		\$55.00	\$205.00
AMBIOS	Ambios Surface Profiler		\$55.00	\$205.00
PROBE	4 Point Probe Station		\$55.00	\$205.00
WBONDER	Wire Bonder		\$55.00	\$205.00
	Tier 0 - Cleanroom Free Tools			
	Megasonics Cleaner		\$30.00	\$180.00
SHOV	ShelLab low-temperature Ovens		\$30.00	\$180.00
RCA	RCA clean bench		\$30.00	\$180.00
	RCA general acid bench		\$30.00	\$180.00
SRD	Spin Rinse Dryer		\$30.00	\$180.00
	XPS - Gavett Hall Lab			
	Tier 5 - XPS			
XPS	XPS Day Rate 6am - 6pm		\$125.00	\$275.00
	XPS Night Rate (Required at least 6 hour time block)		\$100.00	\$250.00
	XPS Weekendt Rate (Required at least 20 hour time block	()	\$75.00	\$225.00
	Engineer Time/Training Time			
	Engineer Hourly Rate			\$150.00

updated 10/16/2023