

# MNC Academic Rates--Access and Equipment Use

valid 8/1/16 to 7/31/17 RATES SUBJECT TO CHANGE

ACCESS/USE	LOCATIONS	UNITS	RATE	MONTHLY MAX
ACCESS FEE	PAN cleanroom, Keller cleanroom, Keller Areas 1-3	monthly fee	\$32.75	\$32.75
LAB USAGE FEE	PAN cleanroom, Keller cleanroom, Keller Areas 1-3	per lab session	\$28.39	\$227.12
PAN NANO-BIO LAB	PAN 181	per hour	\$28.80	50% off after 12 hours
PAN NANO-MATERIALS LAB	PAN 185	per hour	\$28.80	50% off after 12 hours

CATEGORIES	INCLUDED EQUIPMENT	UNITS	RATE	50% Rate Reduction After 500 min/month
2D MATERIALS GROWTH	Graphene furnace, TMD furnace	minute	\$0.30	
ALD-ATOMIC LAYER DEP	ALD Savannah 200, Fiji PEALD	minute	\$0.35	
ALIGNERS	MA6, MABA6, MA6-P	minute	\$0.81	
ANALYTICAL EQUIPMENT	AFM, P16, P7, HS SCOPE	minute	\$0.46	
CRITICAL POINT DRYER	Tousimis system	minute	\$0.62	
DRY ETCHING	Ion Mill, Oxford RIE, STS etcher, AV, Deep Trench etcher, XeF2 etcher	minute	\$0.85	
E-BEAM EVAPORATION	CHA, Temescal and Varian	minute	\$0.50	
E-BEAMLITHOGRAPHY	Vistec EBPG 5000+	minute	\$2.13	X
FIB	FEI Quanta 200 3D	minute	\$1.03	X
LASERWRITER	Heidelberg DWL 200	minute	\$0.33	
LPCVD	Thermco LPCVD system	minute	\$1.37	
MASKMAKING	Min feature size > 1.5um	per mask	\$237.61	
MASKMAKING	1.0um < Min feature size < 1.5um	per mask	\$433.47	
MINIBRUTE FURNACE	Minibrute furnace	minute	\$1.08	
NANOIMPRINTER	Nanonex	minute	\$1.25	
ORIEL	Oriel	minute	\$0.30	
OXIDATION/DIFFUSION	Tylan Oxidation system	minute	\$0.80	
PECVD	PECVD, HD PCVD	minute	\$0.32	X
RAPID THERMAL ANNEALING	Modular Process RTA	minute	\$1.45	
SEM	Jeol SEM, Amray SEM	minute	\$0.49	
SPINNERS	CEE equipment, Headway spinner	minute	\$0.36	
SPUTTERING	AJA I, AJA II and PE2400 DC system	minute	\$0.74	X
STEPPER	Canon Stepper	minute	\$1.80	
THERMAL EVAPORATION	Thermal Evaporator	minute	\$0.39	
WAFER BONDING	Karl Suss SB6	minute	\$0.81	
WAFER SAW	DISCO	minute	\$0.40	X

MISC CHARGE RATES	UNITS	RATE
EQUIPMENT RESERVATIONS	per	\$38.21
SHORTCOURSE TRAINING FEE	per session	\$38.21
FIB TRAINING	per session	\$85.00
E-BEAMLITHO TRAINING	per session	\$485.0
HEIDELBERG LASERWRITER	Per session	\$200.0
STAFF LABOR	per hour	varies
CLEAN SPACE FACILITY CHARGE	ft/month	\$16.10
NON-CLEAN SPACE FACILITY CHARGE	squ ft/month	\$0.71