

2025 UCRF Self-user Equipment Training Program

UCRF equipment training for self-user is scheduled weekly.

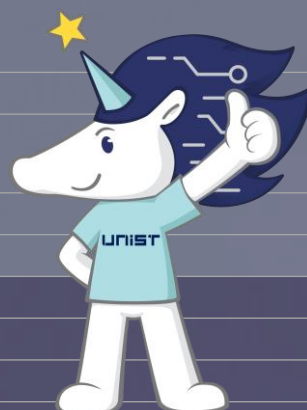

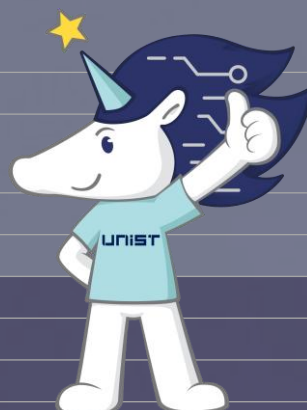
*For training not listed, please refer to the equipment information on the website and contact the staff.

You can get detailed information on UCRF website(<http://ucrf.unist.ac.kr>).  






UCRF

Experimental and Analysis Support Team

GROUP	MON	TUE	WED	THU	FRI
Electron Microscopic Analysis	[101] TEM Basic(JEM-2100)	[103] TEM Adv.(JEM-2100F)			
	[102] TEM Basic(Talos F200X)	[104] TEM Adv.(JEM-ARM300F)			
	[106] FIB(Quanta)	[105] TEM Adv.(Spectra 300)			
	[107] FIB(Helios)	[108] SEM(SU7000/SU8220)			
Spectroscopic Analysis		[109] SEM EDS			
		[110] NMR	[112] FT-IR	[111] ESR	[117] Fluorometer/ Spectrofluorometer
				[113] UV-Vis-NIR	[118] Zeta-sizer
				[114] UV-Vis Microspectrometer	
X-ray Analysis		[119] NXRD(Basic)	[121] MPXRD(Advanced)		
		[120] HPXRD(Basic)	[122] HPXRD-A(Advanced)		
			[123] HPXRD-M(Advanced)		
			[124] HPRXRD(Advanced)		
Surface Analysis	[125] AFM Dimension	[126] AFM Multimode		[127] XPS/UPS	
Thermal & Physical Analysis		[128] TGA	[133] Seebeck		[134] Dilatometry
		[129] SDT			[135] BET
		[130] DSC			
		[131] DMA			
		[132] Rheometer			
Mass Analysis	[136] MALDI-TOF				

Fabrication and Manufacturing Support Team

GROUP	MON	TUE	WED	THU	FRI
Safety Training (Mandatory)	[201] Safety Training (Only 1st week)				[202] Safety Training Qualification Test (Only 1st week)
Photo	[203] Photolithography			[204] E-beam Lithography(Att.)	
Etching				[205] Maskless Laser Lithography	
					[206] Dry Etching(ICP, RIE)
Thinfilm		[209] Sputter(DC, RF, HSC)			[207] Wet Station
		[210] E-Beam Evaporator#2			[208] PR Strip
		[211] PE-CVD			
		[212] LP-CVD			
		[213] Thermal ALD			
Measurement Packaging	[215] Ellipsometer				[216] Surface Profiler
	[217] Dicing Saw				

Biological Research Support Team

GROUP	MON		TUE		WED		THU		FRI	
Experimental Techniques	[301]	Handling & Blood Collection	[302]	Handling & Injection	[304]	Perfusion				
			[303]	Tumor Xenograft Model						
In Vivo Equipment	[305]	Histology: Tissue Processor	[306]	Histology: Embedding	[307]	Histology: Microtome	[309]	Histology: H&E Stain		
			[310]	Behavior: Video-tracking	[308]	Histology: Cryostat	[312]	In Vivo Optical Imaging System		
			[311]	Behavior: Activity/Sense						
Laser Scanning Confocal Microscope	[313]	LSM980	[314]	FV1000	[315]	LSM780NLO Multi Photon			[316]	LSM780
			[317]	OLS3100						
Super Resolution Microscope	[318]	SIM			[319]	PLAM			[320]	Airscan
Research Microscope	[321]	Inverted Microscope	[323]	THUNDER			[324]	Virtual Microscope		
	[322]	Axiozoom Stereo Microscope					[325]	Lightsheet		
							[326]	Laser Capture Microdissection		
Analysis SW			[327]	ZEN	[328]	IMARIS			[329]	MetaMorph

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*For training not listed, please refer to the equipment information on the website and contact the staff.

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UCRF equipment training for self-user is scheduled weekly. *For training not listed, please refer to the equipment information on the website and contact the staff. You can get detailed information on UCRF website(http://ucrf.unist.ac.kr).					
Experimental and Analysis Support Team					
GROUP	MON	TUE	WED	THU	FRI
Electron Microscopic Analysis	101 TEM Basic(JEM-2000) 102 TEM Basic(Talos P2000) 103 TEM Basic(F4000) 104 TEM Adv. (JEM-ARM4000P) 105 TEM Adv. (Jeol JEM-ARM4000P) 106 SEM/EDS 107 SEM EDS	108 TEM Adv. (JEM-ARM4000P) 109 SEM/EDS 110 SEM EDS	111 FT-IR	112 ESR 113 UV-Vis-NIR 114 UV-Vis 115 Microspectrometer 116 Confocal Raman-L2 117 Confocal Raman-3	118 Rheometer/ Spectrophotometer Zeta-sizer
Spectroscopic Analysis	119 NMR(basic) 120 NMR(Advanced)	121 NMR(basic) 122 NMR(Advanced)	123 NMR(basic) 124 NMR(Advanced)	125 XPS/UPS	126 Zeta-sizer
X-ray Analysis	127 APM Dimension	128 TGA 129 DSC 130 DSC 131 DSC 132 Rheometer	133 Seebach	134 XPS/UPS	135 Zeta-sizer
Surface Analysis	136 MALDI-TOF	137 TGA 138 DSC 139 DSC 140 Rheometer	141 Seebach	142 XPS/UPS	143 Zeta-sizer
Thermal & Physical Analysis	144 MALDI-TOF	145 TGA 146 DSC 147 DSC 148 Rheometer	149 Seebach	150 XPS/UPS	151 Zeta-sizer
Fabrication and Manufacturing Support Team					
GROUP	MON	TUE	WED	THU	FRI
Safety Training (Mandatory)	201 Safety Training (Only 1st week)				202 Safety Training (Only 1st week)
Photo	203 Photochemistry			204 E-beam Lithography(405) 205 Maskless Laser Lithography	206 Dry Etching(ICP, RIE) 207 Wet Station 208 PM Strip
Etching	209 Sputter(DC, RF, HFO) 210 E-Beam Evaporator#2 211 PC-CVD 212 LP-CVD 213 Thermal ALD 214 Furnace	215 Sputter(DC, RF, HFO) 216 E-Beam Evaporator#2 217 PC-CVD 218 LP-CVD 219 Thermal ALD 220 Furnace	221 Sputter(DC, RF, HFO) 222 E-Beam Evaporator#2 223 PC-CVD 224 LP-CVD 225 Thermal ALD 226 Furnace	227 E-beam Lithography(405) 228 Maskless Laser Lithography	229 Dry Etching(ICP, RIE) 230 Wet Station 231 PM Strip
Thin Film	232 Sputter(DC, RF, HFO) 233 E-Beam Evaporator#2 234 PC-CVD 235 LP-CVD 236 Thermal ALD 237 Furnace	238 Sputter(DC, RF, HFO) 239 E-Beam Evaporator#2 240 PC-CVD 241 LP-CVD 242 Thermal ALD 243 Furnace	244 Sputter(DC, RF, HFO) 245 E-Beam Evaporator#2 246 PC-CVD 247 LP-CVD 248 Thermal ALD 249 Furnace	250 E-beam Lithography(405) 251 Maskless Laser Lithography	252 Dry Etching(ICP, RIE) 253 Wet Station 254 PM Strip
Measurement	255 Ellipsometer 256 Dicing Saw	257 Ellipsometer 258 Dicing Saw	259 Ellipsometer 260 Dicing Saw	261 Ellipsometer 262 Dicing Saw	263 Ellipsometer 264 Dicing Saw
Biological Research Support Team					
GROUP	MON	TUE	WED	THU	FRI
Experimental Techniques	301 Handling & Blood Collection 302 Tumor Xenograft Model 303 Histology: Embedding 304 Behavior: Video-tracking 305 Behavior: Activity/Sense 306 F1000 307 OLS300	308 Handling & Injection 309 Tumor Xenograft Model 310 Histology: Embedding 311 Behavior: Video-tracking 312 Behavior: Activity/Sense 313 F1000 314 OLS300	315 Handling & Injection 316 Tumor Xenograft Model 317 Histology: Embedding 318 Behavior: Video-tracking 319 Behavior: Activity/Sense 320 F1000 321 OLS300	322 Handling & Injection 323 Tumor Xenograft Model 324 Histology: Embedding 325 Behavior: Video-tracking 326 Behavior: Activity/Sense 327 F1000 328 OLS300	329 Handling & Injection 330 Tumor Xenograft Model 331 Histology: Embedding 332 Behavior: Video-tracking 333 Behavior: Activity/Sense 334 F1000 335 OLS300
In Vivo Equipment	336 LSM980 337 SIM 338 Inverted Microscope 339 Axiozoom Stereo Microscope	340 LSM980 341 SIM 342 Inverted Microscope 343 Axiozoom Stereo Microscope	344 LSM980 345 SIM 346 Inverted Microscope 347 Axiozoom Stereo Microscope	348 LSM980 349 SIM 350 Inverted Microscope 351 Axiozoom Stereo Microscope	352 LSM980 353 SIM 354 Inverted Microscope 355 Axiozoom Stereo Microscope
Laser Scanning Confocal Microscope	356 LSM980 357 SIM 358 Inverted Microscope 359 Axiozoom Stereo Microscope	360 LSM980 361 SIM 362 Inverted Microscope 363 Axiozoom Stereo Microscope	364 LSM980 365 SIM 366 Inverted Microscope 367 Axiozoom Stereo Microscope	368 LSM980 369 SIM 370 Inverted Microscope 371 Axiozoom Stereo Microscope	372 LSM980 373 SIM 374 Inverted Microscope 375 Axiozoom Stereo Microscope
Super Resolution Microscope	376 LSM980 377 SIM 378 Inverted Microscope 379 Axiozoom Stereo Microscope	380 LSM980 381 SIM 382 Inverted Microscope 383 Axiozoom Stereo Microscope	384 LSM980 385 SIM 386 Inverted Microscope 387 Axiozoom Stereo Microscope	388 LSM980 389 SIM 390 Inverted Microscope 391 Axiozoom Stereo Microscope	392 LSM980 393 SIM 394 Inverted Microscope 395 Axiozoom Stereo Microscope
Research Microscope	396 LSM980 397 SIM 398 Inverted Microscope 399 Axiozoom Stereo Microscope	400 LSM980 401 SIM 402 Inverted Microscope 403 Axiozoom Stereo Microscope	404 LSM980 405 SIM 406 Inverted Microscope 407 Axiozoom Stereo Microscope	408 LSM980 409 SIM 410 Inverted Microscope 411 Axiozoom Stereo Microscope	412 LSM980 413 SIM 414 Inverted Microscope 415 Axiozoom Stereo Microscope
Analysis SW	416 ZEN 417 ZEN 418 ZEN 419 ZEN	420 ZEN 421 ZEN 422 ZEN 423 ZEN	424 ZEN 425 ZEN 426 ZEN 427 ZEN	428 ZEN 429 ZEN 430 ZEN 431 ZEN	432 ZEN 433 ZEN 434 ZEN 435 ZEN

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pp.10-14 : Biological Research Support Team

p.15 : Contact





[Revision History]

- First shared on 4 Feb 2025

- Revised on 21 Apr 2025: [118], [135]

You can get detailed information on UCRF website(<http://ucrf.unist.ac.kr>)

Experimental and Analysis Support Team					
GROUP	MON	TUE	WED	THU	FRI
Electron Microscopic Analysis	[101] TEM Basic(JEM-2100)	[103] TEM Adv.(JEM-2100F)			
	[102] TEM Basic(Talos F200X)	[104] TEM Adv.(JEM-ARM300F)			
	[106] FIB(Quanta)	[105] TEM Adv.(Spectra 300)			
	[107] FIB(Helios)	[108] SEM(SU7000/SU8220)			
		[109] SEM EDS			
Spectroscopic Analysis		[110] NMR	[112] FT-IR	[111] ESR	[117] Fluorometer/ Spectrofluorometer
				[113] UV-Vis-NIR	[118] Zeta-sizer
				[114] UV-Vis Microspectrometer	
				[115] Confocal Raman-1,2	
				[116] Confocal Raman-3	
X-ray Analysis		[119] NXRD(Basic)	[121] MPXRD(Advanced)		
		[120] HPXRD(Basic)	[122] HPXRD-A(Advanced)		
			[123] HPXRD-M(Advanced)		
			[124] HPRXRD(Advanced)		
Surface Analysis	[125] AFM Dimension	[126] AFM Multimode		[127] XPS/UPS	
Thermal & Physical Analysis		[128] TGA	[133] Seebeck		[134] Dilatometry
		[129] SDT			[135] BET
		[130] DSC			
		[131] DMA			
		[132] Rheometer			
Mass Analysis	[136] MALDI-TOF				

* For more details, please refer to the next page.

(p.2) Electron Microscopic Analysis [101] – [105]

(p.3) Electron Microscopic Analysis [106] – [109]

(p.4) Spectroscopic Analysis [110] – [118]

(p.5) X-ray Analysis [119] – [124] , Surface Analysis [125] – [127]

(p.6) Thermal & Physical Analysis [128] – [135] , Mass Analysis [136]

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
101	TEM Basic (JEM-2100)	3:1 Training	Mon	10:00 – 11:30	<ul style="list-style-type: none"> Operation 	<ul style="list-style-type: none"> For new users 	Lim, Jeong Hwan
		1:1 Practice (1hr)	Mon – Wed	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice Image measurement 		
102	TEM Basic (Talos F200X)	3:1 Training	Mon	10:00 – 11:30	<ul style="list-style-type: none"> Operation 	<ul style="list-style-type: none"> For new users 	Park, Ji Hyun
		1:1 Practice (1hr)	Mon – Wed	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice Image measurement 		
	TEM Basic (Talos F200X) EDS	1:1 Practice (1hr)	Mon – Wed	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice EDS measurement 	<ul style="list-style-type: none"> For Talos F200X users 	Park, Ji Hyun
103	TEM Advanced (JEM-2100F)	2:1 Training	Tue	10:30 – 11:30	<ul style="list-style-type: none"> Operation 	<ul style="list-style-type: none"> For JEM-2100 users 2:1 Training classes of JEM-2100F and JEM-ARM300F are conducted alternately every other Tuesday. 	Lim, Jeong Hwan
		1:1 Practice (1hr)	Tue – Fri	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice Image measurement 		
104	TEM Advanced (JEM-ARM300F)	2:1 Training	Tue	10:30 – 11:30	<ul style="list-style-type: none"> Operation 	<ul style="list-style-type: none"> For JEM-2100F users 2:1 Training classes of JEM-2100F and JEM-ARM300F are conducted alternately every other Tuesday. 	Lim, Jeong Hwan
		1:1 Practice (1hr)	Tue – Fri	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice Image measurement 		
105	TEM Advanced (Spectra 300)	2:1 Training	Tue	10:00 – 11:30	<ul style="list-style-type: none"> Operation 	<ul style="list-style-type: none"> For Talos F200X users 	Park, Ji Hyun
		1:1 Practice (1hr)	Tue – Fri	10:00 – 17:00	<ul style="list-style-type: none"> Individual practice Image measurement 		

Lim, Jeong Hwan



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
106	FIB (Quanta FIB)	2:1 Training	Mon	09:30 – 11:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Lee, Sun Yi
		1:1 Practice	Mon – Tue	14:00 – 15:00 15:00 – 16:00	<ul style="list-style-type: none"> Individual practice(Cross section) 		
		1:1 Practice	Wed	09:30 – 12:00 14:00 – 17:00	<ul style="list-style-type: none"> Individual practice(TEM sampling) 		
107	FIB (Helios FIB)	2:1 Training	Mon	09:30 – 12:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For Quanta FIB users 	Lee, Sun Yi
		1:1 Practice	Mon	13:30 – 14:30 14:30 – 15:30 16:00 – 18:00	<ul style="list-style-type: none"> Individual practice(Cross section) Individual practice(TEM sampling) 		
		1:1 Practice	Tue	09:30 – 10:30 10:30 – 11:30 14:00 – 17:00	<ul style="list-style-type: none"> Individual practice(Cross section) Individual practice(TEM sampling) 		
		1:1 Practice	Wed	09:30 – 12:00	<ul style="list-style-type: none"> Individual practice(TEM sampling) 		
108	SEM (SU7000 /SU8220)	3:1 Training	Tue	10:30 – 11:30	<ul style="list-style-type: none"> Showing How to operate the Equipment 	<ul style="list-style-type: none"> For new users 	Lee, Jong Hoon
		1:1 Practice (1hr)	Tue	13:30 – 16:30	<ul style="list-style-type: none"> Individual practice Image measurement 		
109	SEM EDS	1:1 Practice (1hr)	Tue	13:30 – 16:30	<ul style="list-style-type: none"> Individual practice EDS measurement 	<ul style="list-style-type: none"> For SEM users 	

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Spectroscopic Analysis [110] – [118]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
110	NMR	Theory	Tue	10:30 – 11:30	<ul style="list-style-type: none">■ Theory education	<ul style="list-style-type: none">■ For new users■ Solution NMR	Han, Sun Phil
		3:1 Training	Tue	13:30 – 14:30	<ul style="list-style-type: none">■ Operation		
		3:1 Practice	Wed	13:30 – 14:30	<ul style="list-style-type: none">■ Parameter calibration■ NMR processing		
111	ESR	3:1 Training	Thu	15:00 – 16:00	<ul style="list-style-type: none">■ Theory education■ Operation	<ul style="list-style-type: none">■ For NMR users	
112	FT-IR	3:1 Training	Wed	09:30 – 10:30	<ul style="list-style-type: none">■ Theory education■ Operation	<ul style="list-style-type: none">■ For new users	Cho, Mi Sun
113	UV-Vis-NIR (%T, %R)	3:1 Training	Thu	10:30 – 11:30	<ul style="list-style-type: none">■ Theory education■ Operation		
114	UV-Vis Microspectrometer	3:1 Training	Thu	09:30 – 10:30	<ul style="list-style-type: none">■ Theory education■ Operation		
115	Confocal Raman-1, 2	3:1 Training	Thu	09:30 – 11:30	<ul style="list-style-type: none">■ Theory education■ Operation		
116	Confocal Raman-3	3:1 Training	Thu	13:30 – 14:30	<ul style="list-style-type: none">■ Theory education■ Operation		
117	Fluorometer / Spectrofluorometer	3:1 Training	Fri	09:30 – 11:30	<ul style="list-style-type: none">■ Theory education■ Operation	<ul style="list-style-type: none">■ For new users	Kang, Yeong Bi
118	Zeta-sizer	3:1 Training	Fri	11:00 – 12:00	<ul style="list-style-type: none">■ Theory education■ Operation	<ul style="list-style-type: none">■ For new users	Lee, Yun Se

Han, Sun Phil



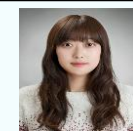
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Cho, Mi Sun



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Kang, Yeong Bi



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Lee, Yun Se



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X-ray Analysis [119] – [124] , Surface Analysis [125] – [127]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
119	NXRD (Basic)	1:1 Training	Tue	10:00 – 17:00	<ul style="list-style-type: none"> ■ Operation ■ Individual Practice ■ Powder XRD Program 	<ul style="list-style-type: none"> ■ For new users with powder 	Lee, Gyeong Ae
120	HPXRD (Basic)	1:1 Training	Tue	10:00 – 17:00			
121	MPXRD (Advanced)	1:1 Training	Wed	10:00 – 17:00			
122	HPRXRD (Advanced)	1:1 Training	Wed	10:00 – 17:00	<ul style="list-style-type: none"> ■ Operation ■ Individual Practice ■ Powder XRD Program 	<ul style="list-style-type: none"> ■ For new users with powder 	Park, Ji Hye
123	HRXRD-A (Advanced)	1:1 Training	Wed	10:00 – 17:00	<ul style="list-style-type: none"> ■ Operation ■ Individual Practice 	<ul style="list-style-type: none"> ■ For new users with film 	Lee, Gyeong Ae
124	HRXRD-M (Advanced)	1:1 Training	Wed	10:00 – 17:00			

Lee, Gyeong Ae



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Park, Ji Hye



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
125	AFM Dimension	3:1 Training	Mon	14:00 – 16:00	<ul style="list-style-type: none"> ■ Theory education ■ Operation 	<ul style="list-style-type: none"> ■ For new users ■ Individual practice after training 	Lim, Dong Ju
126	AFM Multimode	3:1 Training	Tue	14:00 – 16:00	<ul style="list-style-type: none"> ■ Theory education ■ Operation 	<ul style="list-style-type: none"> ■ For new users ■ Individual practice after training 	Lim, Dong Ju
127	XPS/UPS	3:1 Training	Thu	13:00 – 15:00	<ul style="list-style-type: none"> ■ Theory education ■ Operation 	<ul style="list-style-type: none"> ■ For new users ■ Individual practice after training 	Lim, Dong Ju

Lim, Dong Ju



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Thermal & Physical Analysis [128] – [135] , Mass Analysis [136]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
128	TGA	2:1 Training	Tue	09:30 – 10:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Kang, Yeong Bi
129	SDT	2:1 Training	Tue	11:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Kang, Yeong Bi
130	DSC	2:1 Training	Tue	13:00 – 14:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Kang, Yeong Bi
131	DMA	2:1 Training	Tue	14:30 – 15:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Kang, Yeong Bi
132	Rheometer	2:1 Training	Tue	16:00 – 17:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Kang, Yeong Bi
133	Seebeck	3:1 Training	Wed	10:30 – 12:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Han, Eun Jung
134	Dilatometry	3:1 Training	Fri	10:00 – 12:00 13:00 – 15:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Han, Eun Jung
135	BET	2:1 Training	Fri	09:00 – 11:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users Individual practice after training 	Lee, Yun Se

Kang, Yeong Bi



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Han, Eun Jung



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Lee, Yun Se





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Seo, Hyun Kyeong



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
136	MALDI-TOF	3:1 Training	Mon	10:00 – 11:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Seo, Hyun Kyeong
				14:00 – 15:00			

Fabrication and Manufacturing Support Team					
GROUP	MON	TUE	WED	THU	FRI
Safety Training (Mandatory)	[201] Safety Training (Only 1st week)				[202] Safety Training Qualification Test (Only 1st week)
Photo	[203] Photolithography			[204] E-beam Lithography (Att.)	
Etching				[205] Maskless Laser Lithography	
Thinfilm		[209] Sputter (DC, RF, HSC) [210] E-Beam Evaporator #2 [211] PE-CVD [212] LP-CVD [213] Thermal ALD [214] Furnace			[206] Dry Etching (ICP, RIE) [207] Wet Station [208] PR Strip
Measurement	[215] Ellipsometer				[216] Surface Profiler
Packaging	[217] Dicing Saw				

* For more details, please refer to the next page.

(p.8) Safety Training [201] – [202], Photo [203] – [205], Etching [206] – [208]

(p.9) Thinfilm [209] – [214], Measurement [215] – [216], Packaging [217]

Safety Training [201] – [202] , Photo [203] – [205] , Etching [206] – [208]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
201	Safety Training (Mandatory)	Theory	Mon (Only 1st week)	10:00 – 12:00	<ul style="list-style-type: none"> Safety Training for Accessing the Cleanroom 	<ul style="list-style-type: none"> For new users 	Hwang, Eun Jeong
202	Safety Training Qualification Test (Mandatory)	Test	Fri (Only 1st week)	14:00 – 15:00	<ul style="list-style-type: none"> Safety Training Qualification Test 	<ul style="list-style-type: none"> For new users 	Hwang, Eun Jeong

Hwang, Eun Jeong



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
203	Photo Lithography (Mask aligner)	Theory & Practice	Mon	14:00 – 15:00	<ul style="list-style-type: none"> Theory education Showing how to operate the equipment 	<ul style="list-style-type: none"> For new users 	Hwang, Eun Jeong
204	E-beam Lithography (Attached)	Theory & Practice	Thu	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Showing how to operate the equipment 	<ul style="list-style-type: none"> For new users 	Lee, Seon Jin
205	Maskless Laser Lithography	Theory & Practice	Thu	14:00 – 15:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Hwang, Eun Jeong

Lee, Seon Jin



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
206	Dry Etching (ICP, RIE)	3:1 Training	Fri	10:00 – 11:00	<ul style="list-style-type: none"> Showing How to operate the Equipment 	<ul style="list-style-type: none"> For new users 	Lee, Song Hee
207	Wet Station	3:1 Training	Fri	11:00 – 12:00	<ul style="list-style-type: none"> Showing How to operate the Equipment 	<ul style="list-style-type: none"> For new users 	Lee, Song Hee
208	PR Strip	3:1 Training	Fri	16:00 – 17:00	<ul style="list-style-type: none"> Showing how to operate the equipment 	<ul style="list-style-type: none"> For new users 	Kim, Min Jae

Lee, Song Hee



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Thinfilm [209] – [214] , Measurement [215] – [216] , Packaging [217]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
209	Sputter (DC, RF, HSC)	3:1 Training	Tue	10:00 – 11:30	■ Showing how to operate the equipment	■ For new users	Kim, Hyung Il
210	E-Beam Evaporator#2	3:1 Training	Tue	10:00 – 11:30	■ Showing How to operate the Equipment	■ For new users	Hwang, Eun Jeong
211	PE-CVD	3:1 Training	Tue	13:00 – 14:00	■ Showing How to operate the Equipment	■ For new users	Kim, Bo Seong
212	LP-CVD	3:1 Training	Tue	14:00 – 15:00	■ Showing how to operate the equipment	■ For new users	Kang, Hae Ra
213	Thermal ALD	3:1 Training	Tue	15:00 – 16:00	■ Showing How to operate the Equipment	■ For new users	Kim, Bo Seong
214	Furnace	3:1 Training	Tue	16:00 – 17:00	■ Showing how to operate the equipment	■ For new users	Kang, Hae Ra

Kim, Hyung Il



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Kim, Bo Seong



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Kang, Hae Ra



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Lee, Seon Jin




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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
215	Ellipsometer	3:1 Training	Mon	17:00 – 18:00	■ Showing How to operate the Equipment	■ For new users	Kim, Bo Seong
216	Surface Profiler	3:1 Training	Fri	15:00 – 16:00	■ Showing how to operate the equipment ■ Individual practice	■ For new users	Lee, Seon Jin

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
217	Dicing Saw	3:1 Training	Mon	16:00 – 17:00	■ Showing How to operate the Equipment	■ For new users	Lee, Seon Jin

Biological Research Support Team									
GROUP	MON		TUE	WED	THU	FRI			
Experimental Techniques	[301]	Handling & Blood Collection	[302]	Handling & Injection	[304]	Perfusion			
			[303]	Tumor Xenograft Model					
In Vivo Equipment	[305]	Histology: Tissue Processor	[306]	Histology: Embedding	[307]	Histology: Microtome		[309]	Histology: H&E Stain
			[310]	Behavior: Video-tracking	[308]	Histology: Cryostat		[312]	In Vivo Optical Imaging System
			[311]	Behavior: Activity/Sense					
Laser Scanning Confocal Microscope	[313]	LSM980	[314]	FV1000	[315] LSM780NLO Multi Photon		[316]	LSM780	
			[317]	OLS3100					
Super Resolution Microscope	[318]	SIM		[319]	PLAM		[320]	Airscan	
Research Microscope	[321]	Inverted Microscope	[323]	THUNDER		[324]	Virtual Microscope		
	[322]	Axiozoom Stereo Microscope				[325]	Lightsheet		
						[326]	Laser Capture Microdissection		
Analysis SW			[327]	ZEN	[328]	IMARIS		[329]	MetaMorph

* For more details, please refer to the next page.

(p.11) Experimental Techniques [301] – [304] , In Vivo Equipment [305] – [312]

(p.12) Laser Scanning Confocal Microscope [313] – [317] , Super Resolution Microscope [318] – [320]

(p.13) Research Microscope [321] – [326] , Analysis Software [327] – [329]

(p.14) 'In Vivo Research Center' Access Training Schedule

Experimental Techniques [301] – [304] , In Vivo Equipment [305] – [312]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
301	Handling, Blood Collection	Theory & Practice	Mon	13:30 – 15:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Park, Kyung Su
302	Handling, Injection	Theory & Practice	Tue	13:30 – 15:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Park, Kyung Su
303	Tumor Xenograft model	Theory & Practice	Tue	15:30 – 16:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Park, Soo Ah
304	Perfusion	Theory & Practice	Wed	13:30 – 15:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Park, Soo Ah

Park, Kyung Su



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Park, Soo Ah



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
305	Histology: Tissue Processor	Theory & Practice	Mon	16:00 – 18:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For paraffin block 	Choi, Yun Ji
306	Histology: Embedding	Theory & Practice	Tue	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For paraffin block 	Choi, Yun Ji
307	Histology: Microtome	Theory & Practice	Wed	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For paraffin slide 	Choi, Yun Ji
308	Histology: Cryostat	Theory & Practice	Wed	14:00 – 16:00	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For frozen block and slide 	Choi, Yun Ji
309	Histology: H&E stain (Paraffin/Frozen)	Theory & Practice	Thu	16:00 – 18:00	<ul style="list-style-type: none"> Theory education 	<ul style="list-style-type: none"> For routine staining 	Choi, Yun Ji
310	Behavior: Video-tracking	1:4 Theory	Tue	14:00-15:00	<ul style="list-style-type: none"> Theory education 	<ul style="list-style-type: none"> For new users 	Hwang, Soo Hyun
311	Behavior: Activity/sense	1:4 Theory	Tue	15:00-16:00	<ul style="list-style-type: none"> Theory education 	<ul style="list-style-type: none"> For new users 	Hwang, Soo Hyun
312	In Vivo Optical Imaging System	Theory & Practice	Thu	13:30 – 15:30	<ul style="list-style-type: none"> Theory education Operation 	<ul style="list-style-type: none"> For new users 	Park, Soo Ah

Choi, Yun Ji



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Laser Scanning Confocal Microscope [313] – [317] , Super Resolution Microscope [318] – [320]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
313	LSM980	3:1 Training	Mon	13:00 – 15:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe
314	FV1000	3:1 Training	Tue	13:00 – 15:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe
315	LSM780NLO Multi Photon	3:1 Training	Wed	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
316	LSM780	3:1 Training	Fri	16:00 – 18:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe
317	OLS3100	3:1 Training	Tue	15:00 – 16:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan

Hur, Jinhoe



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Joung, Hong Chan



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
318	SIM Super Resolution	3:1 Training	Mon	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
319	PLAM Super Resolution	3:1 Training	Wed	13:00 – 15:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
320	Airscan Super Resolution	3:1 Training	Fri	15:00 – 16:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe

Research Microscope [321] – [326] , Analysis Software [327] – [329]

Instructor Information

No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
321	Inverted Microscope	3:1 Training	Mon	15:00 – 16:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
322	Axiozoom Stereo Microscope	3:1 Training	Mon	16:00 – 18:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe
323	THUNDER	3:1 Training	Tue	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe
324	Virtual Microscope	3:1 Training	Thu	10:00 – 12:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
325	Lightsheet	3:1 Training	Thu	13:00 – 16:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
326	Laser Capture Microdissection	3:1 Training	Thu	16:00 – 18:00	<ul style="list-style-type: none"> Theory education Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe

Joung, Hong Chan



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Hur, Jinhoe



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No.	Equipment	Title	Day	Time	Contents	Notes	Instructor
327	ZEN	3:1 Training	Tue	16:00 – 18:00	<ul style="list-style-type: none"> Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
328	IMARIS	3:1 Training	Wed	16:00 – 18:00	<ul style="list-style-type: none"> Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Joung, Hong Chan
329	MetaMorph	3:1 Training	Fri	13:00 – 15:00	<ul style="list-style-type: none"> Operation Individual practice Image measurement 	<ul style="list-style-type: none"> For new users 	Hur, Jinhoe

'In Vivo Research Center' Access Training Schedule

- ✓ **Who should apply?** a person who needs to obtain a new access permit
- ✓ **To enter IVRC's animal zone, you should complete** ①online, ②on-site and ③safety training.
- ✓ **Animal zone manager:** Lee Yoonjin(Small animal zone, Isolation zone), Kim Hyejin(Return animal zone, MP zone)

2025 Session	Application Period (2 weeks)	Enrollment by Admin	Online Training Period (1 week)	On-site Training Schedule Notification By Admin	On-site / Safety Training(1 day)
1 st	2024.12.16.-12.26.	2024.12.27.	2024.12.30.-2025.1.3.	2025.1.6.	2024.1.7.-1.8.
2 nd	2025.1.20.-1.30.	2025.1.31.	2025.2.3.-2.7.	2025.2.10.	2025.2.11.-2.12.
3 rd	2025.2.17.-2.27.	2025.2.28.	2025.3.3.-3.7.	2025.3.10.	2025.3.11.-3.12.
4 th	2025.3.17.-3.27.	2025.3.28.	2025.3.31.-4.4.	2025.4.7.	2025.4.8.-4.9.
5 th	2025.4.21.-5.1.	2025.5.2.	2025.5.5.-5.9.	2025.5.12.	2025.5.13.-5.14.
6 th	2025.5.19.-5.29.	2025.5.30.	2025.6.2.-6.6.	2025.6.9.	2025.6.10.-6.11.
7 th	2025.6.16.-6.26.	2025.6.27.	2025.6.30.-7.4.	2025.7.7.	2025.7.8.-7.9.
8 th	2025.7.21.-7.31.	2025.8.1.	2025.8.4.-8.8.	2025.8.11.	2025.8.12.-8.13.
9 th	2025.8.18.-8.28.	2025.8.29.	2025.9.1.-9.5.	2025.9.8.	2025.9.9.-9.10.
10 th	2025.9.22.-10.1.	2025.10.2.	2025.10.2.-10.12.	2025.10.13.	2025.10.14.-10.15.
11 th	2025.10.20.-10.30.	2025.10.31.	2025.11.3.-11.7.	2025.11.10.	2025.11.11.-11.12.
12 th	2025.11.17.-11.27.	2025.11.28.	2025.12.1.-12.5.	2025.12.8.	2025.12.9.-12.10.

You can apply on UCRF website.

Online training is conducted through videos on Blackboard system, and only those who have been granted an account by the administrator can access the system.

After coordinating the on-site training schedule, the administrator will notify you of the date.

**UCRF self-user training is open for all to attend.
Please feel free to contact us.**

<Contact>

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**CENTRAL RESEARCH
FACILITIES**

