جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology

Analytical Chemistry Core Lab

Training Schedule Fall/Winter 2021–2022

September

Training Name	Training Duration (hrs)	Max. Capacity	Sep 1	Sep 2	Sep 5	Sep 6	Sep 7	Sep 8	Sep 9	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 19	Sep 20	Sep 21	Sep 22	Sep 23	Sep 26	Sep 27	Sep 28	Sep 29	Sep 30
SOLIDS																								
BET – Nitrogen	8	4											X	X										
BET – Carbon Dioxide*	2	4																					N	
BET – Krypton*	2	4																					N	
BET & Pore Size Distribution – Ultramicropores*	2	4												N										
Gas Adsorption – ASAP 2020 / 2050	2	4															N							
Heat of Adsorption*	2	4															N							
Gravimetric Gas Sorption**	8	2				N	N	N																
Moisture Sorption	2	3				N																		
Mercury Intrusion Porosimetry**	4	2							X															
Contact Angle	2	4										X												
Surface and Interfacial Tension	2	4										X												
Surface Zeta Potential	3	4																					X	
Zeta Potential Tritration*	1	4																					N	
Dynamic Light Scattering	3	4																					X	
Dynamic Pulse Chemisorption	3	3						X	X															
Temperature Programmed Reduction/Oxidation (TPR/TPO)	3	3						N																
Temperature Programmed Desorption (TPD)	3	3							N															
Static Chemisorption – ASAP 2020	4	3					N																	
PID Effi Microactivity Reactor	8	2				N																		
Basic FTIR	3	4															X							
Advanced FTIR (*in situ* DRIFTS OR Micro-FTIR)*	3	4															X							
Basic UV-VIS-NIR	2	4																				X		
Advanced UV-VIS-NIR (TAMS)*	3	4																				X		
Fluorescence	2	4																			N			
INORGANICS																								
CHNS-O	3	3					X					X					X					X		
Advanced CHNS-O (liquid autosampler)*	1	2					N																	
Aquakem250 Autoanalyzer	3	2	N																					
Segmented Flow Analyzer	8	2	N	N																				
Ion Chromatography	3	2						N																
Karl Fisher Titrator	1	2						N																
Advanced Karl Fisher Titrator (stromboli)*	1	2						N																
Autotitrator	2	2	N																					
TOCTN	4	3	X										X										X	
Advanced TOCTN (solid sampler)*	2	2	N																					
Viscometer	1	2	N																					
Conductivity/PH/ISE	1	2						N																
TD-Fluorometer	2	2						N																
Turbidity	1	2						N																
Density Meter	2	2	N																					
ICP-OES - Aqueous/Solid Analysis	3	3					X					X					X		NATIONAL DAY			X		
ICP-OES - Crude Oil Analysis	2	2	X										X										X	
ICP-MS	3	3						X										X						
XRF	2	2	N																					
Freeze Dryer	1	2	N																					
Mill Grinder	1	2	N																					
TGA	3	3					X					X					X					X		
Advanced TGA (FT-IR)*	3	2					N																	
DSC - TA	3	3	X										X										X	
Simultaneous Thermal Analyzer (STA)	3	3						X										X						
Advanced STA (MS)*	3	2						N																
Advanced STA (humidity generator)*	3	2						N																
Laser Flash Apparatus	3	2				N																		
Dilatometry	3	2				N																		
ORGANICS																								
Micro-TOF MS_trng_acl	3	2					X					X					X					X		
GC-ECD-DPFD_trng_acl	3	2				N					N					N					N			
GC-TCD-FID_trng_acl	3	2				X		X			X		X			X					X		X	
GC FID_Gas Analyzer	1	2				N					N					N					N			
GPC-Dual Angle LS_trng_acl	4	2					X					X					X					X		
GPC-RID (Aqua)_trng_acl	4	2			X					X					X					X				
GPC-RID (DMF)_trng_acl	4	2				X					X					X					X			
HT-GPC_trng_acl	4	3						X					X					X					X	
Headspace-GC-FID-TCD-MS_trng_acl	6	2				X		X			X		X			X		X			X		X	
HT3-GC-FID-MS_trng_acl	6	2				X		X			X		X			X		X			X		X	
LC-PDA-Fractionation_trng_acl	4	1					X					X					X					X		
MALDI-TOF-MS_trng_acl	4	2							X					X										X
Purge and Trap-GC-FID-NPD-MS_trng_acl	6	2				X		X			X		X			X		X			X		X	
1290 LC-PDA_trng_acl	3	2					X					X					X					X		
UPLC-PDA-MS-MS_trng_acl	5	2					X					N					X					N		
Accelerated Solvent Extraction_trng_acl	2	2							N					N										N
DryVap_trng_acl	2	2							N					N										N
Freeze-dryer (Small)_trng_acl	1	2			N					N					N					N				
Rotavap_trng_acl	2	2					N					N					N					N		
Turbovap_trng_acl	1	2					N					N					N					N		
METABOLOMICS																								
GC-MSMS-met_acl	4	2				N	N																	
UPLC-Tribrid Orbitrap MS_acl**	5	2																						
UPLC-PDA-MS-MS_trng_acl	5	2				N																		

October

Training Name	Oct 3	Oct 4	Oct 5	Oct 6	Oct 7	Oct 10	Oct 11	Oct 12	Oct 13	Oct 14	Oct 17	Oct 18	Oct 19	Oct 20	Oct 21	Oct 24	Oct 25	Oct 26	Oct 27	Oct 28	Oct 31
SOLIDS																					
BET – Nitrogen									X	X											
BET – Carbon Dioxide*																			N		
BET – Krypton*																			N		
BET & Pore Size Distribution – Ultramicropores*										N											
Gas Adsorption – ASAP 2020 / 2050													N								
Heat of Adsorption*													N								
Gravimetric Gas Sorption**		N	N	N																	
Moisture Sorption		N																			
Mercury Intrusion Porosimetry**					X																
Contact Angle								X													
Surface and Interfacial Tension								X													
Surface Zeta Potential																			X		
Zeta Potential Tritration*																			N		
Dynamic Light Scattering																			X		
Dynamic Pulse Chemisorption				X	X																
Temperature Programmed Reduction/Oxidation (TPR/TPO)				N																	
Temperature Programmed Desorption (TPD)					N																
Static Chemisorption – ASAP 2020			N																		
PID Effi Microactivity Reactor		N																			
Basic FTIR													X								
Advanced FTIR (*in situ* DRIFTS OR Micro-FTIR)*													X								
Basic UV-VIS-NIR																		X			
Advanced UV-VIS-NIR (TAMS)*																		X			
Fluorescence																	N				
INORGANICS																					
CHNS-O			X					X					X					X			
Advanced CHNS-O (liquid autosampler)*			N																		
Aquakem250 Autoanalyzer				N																	
Segmented Flow Analyzer				N	N																
Ion Chromatography									N												
Karl Fisher Titrator									N												
Advanced Karl Fisher Titrator (stromboli)*									N												
Autotitrator				N																	
TOCTN									X										X		
Advanced TOCTN (solid sampler)*				N																	
Viscometer				N																	
Conductivity/PH/ISE									N												
TD-Fluorometer									N												
Turbidity									N												
Density Meter				N																	
ICP-OES - Aqueous/Solid Analysis			X					X					X					X			
ICP-OES - Crude Oil Analysis									X										X		
ICP-MS				X										X							
XRF				N																	
Freeze Dryer				N																	
Mill Grinder				N																	
TGA			X					X					X					X			
Advanced TGA (FT-IR)*			N																		
DSC - TA									X										X		
Simultaneous Thermal Analyzer (STA)				X										X							
Advanced STA (MS)*				N																	
Advanced STA (humidity generator)*				N																	
Laser Flash Apparatus		N																			
Dilatometry		N																			
ORGANICS																					
Micro-TOF MS_trng_acl			X					X					X					X			
GC-ECD-DPFD_trng_acl		N					N					N					N				
GC-TCD-FID_trng_acl		X		X			X		X			X		X			X		X		
GC FID_Gas Analyzer		N					N					N					N				
GPC-Dual Angle LS_trng_acl			X					X					X					X			
GPC-RID (Aqua)_trng_acl	X					X					X					X					X
GPC-RID (DMF)_trng_acl		X					X					X					X				
HT-GPC_trng_acl				X					X					X					X		
Headspace-GC-FID-TCD-MS_trng_acl		X		X			X		X			X		X			X		X		
HT3-GC-FID-MS_trng_acl		X		X			X		X			X		X			X		X		
LC-PDA-Fractionation_trng_acl			X					X					X					X			
MALDI-TOF-MS_trng_acl					X					X					X					X	
Purge and Trap-GC-FID-NPD-MS_trng_acl		X		X			X		X			X		X			X		X		
1290 LC-PDA_trng_acl			X					X					X					X			
UPLC-PDA-MS-MS_trng_acl			X					N					X					N			
Accelerated Solvent Extraction_trng_acl					N					N					N					N	
DryVap_trng_acl					N					N					N					N	
Freeze-dryer (Small)_trng_acl	N					N					N					N					N
Rotavap_trng_acl			N					N					N					N			
Turbovap_trng_acl			N					N					N					N			
METABOLOMICS																					
GC-MSMS-met_acl		N	N																		
UPLC-Tribrid Orbitrap MS_acl**																					
UPLC-PDA-MS-MS_trng_acl		N																			

November

Training Name	Nov 1	Nov 2	Nov 3	Nov 4	Nov 7	Nov 8	Nov 9	Nov 10	Nov 11	Nov 14	Nov 15	Nov 16	Nov 17	Nov 18	Nov 21	Nov 22	Nov 23	Nov 24	Nov 25	Nov 28	Nov 29	Nov 30
SOLIDS																						
BET – Nitrogen								X	X													
BET – Carbon Dioxide*																		N				
BET – Krypton*																		N				
BET & Pore Size Distribution – Ultramicropores*									N													
Gas Adsorption – ASAP 2020 / 2050												N										
Heat of Adsorption*												N										
Gravimetric Gas Sorption**	N	N	N																			
Moisture Sorption	N																					
Mercury Intrusion Porosimetry**				X																		
Contact Angle							X															
Surface and Interfacial Tension							X															
Surface Zeta Potential																		X				
Zeta Potential Tritration*																		N				
Dynamic Light Scattering																		X				
Dynamic Pulse Chemisorption			X	X																		
Temperature Programmed Reduction/Oxidation (TPR/TPO)			N																			
Temperature Programmed Desorption (TPD)				N																		
Static Chemisorption – ASAP 2020		N																				
PID Effi Microactivity Reactor	N																					
Basic FTIR												X										
Advanced FTIR (*in situ* DRIFTS OR Micro-FTIR)*												X										
Basic UV-VIS-NIR																	X					
Advanced UV-VIS-NIR (TAMS)*																	X					
Fluorescence																N						
INORGANICS																						
CHNS-O		X					X					X					X					X
Advanced CHNS-O (liquid autosampler)*		N																				
Aquakem250 Autoanalyzer			N																			
Segmented Flow Analyzer			N	N																		
Ion Chromatography								N														
Karl Fisher Titrator								N														
Advanced Karl Fisher Titrator (stromboli)*								N														
Autotitrator			N																			
TOCTN								X										X				
Advanced TOCTN (solid sampler)*			N																			
Viscometer			N																			
Conductivity/PH/ISE								N														
TD-Fluorometer								N														
Turbidity								N														
Density Meter			N																			
ICP-OES - Aqueous/Solid Analysis		X					X					X					X					X
ICP-OES - Crude Oil Analysis								X										X				
ICP-MS			X										X									
XRF			N																			
Freeze Dryer			N																			
Mill Grinder			N																			
TGA		X					X					X					X					X
Advanced TGA (FT-IR)*		N																				
DSC - TA								X										X				
Simultaneous Thermal Analyzer (STA)			X										X									
Advanced STA (MS)*			N																			
Advanced STA (humidity generator)*			N																			
Laser Flash Apparatus	N																					
Dilatometry	N																					
ORGANICS																						
Micro-TOF MS_trng_acl		X					X					X					X					X
GC-ECD-DPFD_trng_acl	N					N					N					N					N	
GC-TCD-FID_trng_acl	X		X			X		X			X		X			X		X			X	
GC FID_Gas Analyzer	N					N					N					N					N	
GPC-Dual Angle LS_trng_acl		X					X					X					X					X
GPC-RID (Aqua)_trng_acl					X					X					X					X		
GPC-RID (DMF)_trng_acl	X					X					X					X					X	
HT-GPC_trng_acl			X					X					X					X				
Headspace-GC-FID-TCD-MS_trng_acl	X		X			X		X			X		X			X		X			X	
HT3-GC-FID-MS_trng_acl	X		X			X		X			X		X			X		X			X	
LC-PDA-Fractionation_trng_acl		X					X					X					X					X
MALDI-TOF-MS_trng_acl				X					X					X					X			
Purge and Trap-GC-FID-NPD-MS_trng_acl	X		X			X		X			X		X			X		X			X	
1290 LC-PDA_trng_acl		X					X					X					X					X
UPLC-PDA-MS-MS_trng_acl		X					N					X					N					X
Accelerated Solvent Extraction_trng_acl				N					N					N					N			
DryVap_trng_acl				N					N					N					N			
Freeze-dryer (Small)_trng_acl					N					N					N					N		
Rotavap_trng_acl		N					N					N					N					N
Turbovap_trng_acl		N					N					N					N					N
METABOLOMICS																						
GC-MSMS-met_acl	N	N																				
UPLC-Tribrid Orbitrap MS_acl**																						
UPLC-PDA-MS-MS_trng_acl	N																					

December

Training Name	Dec 1	Dec 2	Dec 5	Dec 6	Dec 7	Dec 8	Dec 9	Dec 12	Dec 13	Dec 14	Dec 15	Dec 16	Dec 19	Dec 20	Dec 21	Dec 22	Dec 23	Dec 26	Dec 27	Dec 28	Dec 29	Dec 30
SOLIDS																						
BET – Nitrogen											X	X										
BET – Carbon Dioxide*																N						
BET – Krypton*																N						
BET & Pore Size Distribution – Ultramicropores*												N										
Gas Adsorption – ASAP 2020 / 2050															N							
Heat of Adsorption*															N							
Gravimetric Gas Sorption**				N	N	N																
Moisture Sorption				N																		
Mercury Intrusion Porosimetry**							X															
Contact Angle					X																	
Surface and Interfacial Tension					X																	
Surface Zeta Potential																X						
Zeta Potential Tritration*																N						
Dynamic Light Scattering																X						
Dynamic Pulse Chemisorption						X	X															
Temperature Programmed Reduction/Oxidation (TPR/TPO)						N																
Temperature Programmed Desorption (TPD)							N															
Static Chemisorption – ASAP 2020					N																	
PID Effi Microactivity Reactor				N																		
Basic FTIR										X												
Advanced FTIR (*in situ* DRIFTS OR Micro-FTIR)*										X												
Basic UV-VIS-NIR															X							
Advanced UV-VIS-NIR (TAMS)*															X							
Fluorescence														N								
INORGANICS																						
CHNS-O					X					X					X					X		
Advanced CHNS-O (liquid autosampler)*					N																	
Aquakem250 Autoanalyzer	N																					
Segmented Flow Analyzer	N	N																				
Ion Chromatography						N																
Karl Fisher Titrator						N																
Advanced Karl Fisher Titrator (stromboli)*						N																
Autotitrator	N																					
TOCTN						X										X						
Advanced TOCTN (solid sampler)*	N																					
Viscometer	N																					
Conductivity/PH/ISE						N																
TD-Fluorometer						N																
Turbidity						N																
Density Meter	N																					
ICP-OES - Aqueous/Solid Analysis					X					X					X					X		
ICP-OES - Crude Oil Analysis						X										X						
ICP-MS	X										X										X	
XRF	N																					
Freeze Dryer	N																					
Mill Grinder	N																					
TGA					X					X					X					X		
Advanced TGA (FT-IR)*					N																	
DSC - TA						X										X						
Simultaneous Thermal Analyzer (STA)	X										X										X	
Advanced STA (MS)*	N																					
Advanced STA (humidity generator)*	N																					
Laser Flash Apparatus				N																		
Dilatometry				N																		
ORGANICS																						
Micro-TOF MS_trng_acl					X					X					X					X		
GC-ECD-DPFD_trng_acl				N					N					N					N			
GC-TCD-FID_trng_acl	X			X		X			X		X			X		X			X		X	
GC FID_Gas Analyzer				N					N					N					N			
GPC-Dual Angle LS_trng_acl					X					X					X					X		
GPC-RID (Aqua)_trng_acl			X					X					X					X				
GPC-RID (DMF)_trng_acl				X					X					X					X			
HT-GPC_trng_acl	X					X					X					X					X	
Headspace-GC-FID-TCD-MS_trng_acl	X			X		X			X		X			X		X			X		X	
HT3-GC-FID-MS_trng_acl	X			X		X			X		X			X		X			X		X	
LC-PDA-Fractionation_trng_acl					X					X					X					X		
MALDI-TOF-MS_trng_acl		X					X					X					X					X
Purge and Trap-GC-FID-NPD-MS_trng_acl	X			X		X			X		X			X		X			X		X	
1290 LC-PDA_trng_acl					X					X					X					X		
UPLC-PDA-MS-MS_trng_acl					N					X					N					X		
Accelerated Solvent Extraction_trng_acl		N					N					N					N					N
DryVap_trng_acl		N					N					N					N					N
Freeze-dryer (Small)_trng_acl			N					N					N					N				
Rotavap_trng_acl					N					N					N					N		
Turbovap_trng_acl					N					N					N					N		
METABOLOMICS																						
GC-MSMS-met_acl				N	N																	
UPLC-Tribrid Orbitrap MS_acl**																						
UPLC-PDA-MS-MS_trng_acl				N																		

January

Training Name	Jan 2	Jan 3	Jan 4	Jan 5	Jan 6	Jan 9	Jan 10	Jan 11	Jan 12	Jan 13	Jan 16	Jan 17	Jan 18	Jan 19	Jan 20	Jan 23	Jan 24	Jan 25	Jan 26	Jan 27	Jan 30	Jan 31
SOLIDS																						
BET – Nitrogen														X	X							
BET – Carbon Dioxide*																			N			
BET – Krypton*																			N			
BET & Pore Size Distribution – Ultramicropores*																						
Gas Adsorption – ASAP 2020 / 2050																		N				
Heat of Adsorption*																		N				
Gravimetric Gas Sorption**							N	N	N													
Moisture Sorption							N															
Mercury Intrusion Porosimetry**										X												
Contact Angle								X														
Surface and Interfacial Tension								X														
Surface Zeta Potential																			X			
Zeta Potential Tritration*																			N			
Dynamic Light Scattering																			X			
Dynamic Pulse Chemisorption									X	X												
Temperature Programmed Reduction/Oxidation (TPR/TPO)									N													
Temperature Programmed Desorption (TPD)										N												
Static Chemisorption – ASAP 2020								N														
PID Effi Microactivity Reactor							N															
Basic FTIR													X									
Advanced FTIR (*in situ* DRIFTS OR Micro-FTIR)*													X									
Basic UV-VIS-NIR																		X				
Advanced UV-VIS-NIR (TAMS)*																		X				
Fluorescence																	N					
INORGANICS																						
CHNS-O			X					X					X					X				
Advanced CHNS-O (liquid autosampler)*			N																			
Aquakem250 Autoanalyzer				N																		
Segmented Flow Analyzer				N	N																	
Ion Chromatography									N													
Karl Fisher Titrator									N													
Advanced Karl Fisher Titrator (stromboli)*									N													
Autotitrator				N																		
TOCTN				X										X								
Advanced TOCTN (solid sampler)*				N																		
Viscometer				N																		
Conductivity/PH/ISE									N													
TD-Fluorometer									N													
Turbidity									N													
Density Meter																						
ICP-OES - Aqueous/Solid Analysis			X					X					X					X				
ICP-OES - Crude Oil Analysis				X										X								
ICP-MS									X										X			
XRF				N																		
Freeze Dryer				N																		
Mill Grinder				N																		
TGA			X					X					X					X				
Advanced TGA (FT-IR)*			N																			
DSC - TA				X										X								
Simultaneous Thermal Analyzer (STA)									X										X			
Advanced STA (MS)*									N													
Advanced STA (humidity generator)*									N													
Laser Flash Apparatus		N																				
Dilatometry		N																				
ORGANICS																						
Micro-TOF MS_trng_acl			X					X					X					X				
GC-ECD-DPFD_trng_acl		N					N					N					N					
GC-TCD-FID_trng_acl		X		X			X		X			X		X			X		X			
GC FID_Gas Analyzer		N					N					N					N					
GPC-Dual Angle LS_trng_acl			X					X					X					X				
GPC-RID (Aqua)_trng_acl	X					X					X					X						
GPC-RID (DMF)_trng_acl		X					X					X					X					
HT-GPC_trng_acl				X					X					X					X			
Headspace-GC-FID-TCD-MS_trng_acl		X		X			X		X			X		X			X		X			
HT3-GC-FID-MS_trng_acl		X		X			X		X			X		X			X		X			
LC-PDA-Fractionation_trng_acl			X					X					X					X				
MALDI-TOF-MS_trng_acl					X					X					X					X		
Purge and Trap-GC-FID-NPD-MS_trng_acl		X		X			X		X			X		X			X		X			
1290 LC-PDA_trng_acl			X					X					X					X				
UPLC-PDA-MS-MS_trng_acl			N					X					N					X				
Accelerated Solvent Extraction_trng_acl					N					N					N					N		
DryVap_trng_acl					N					N					N					N		
Freeze-dryer (Small)_trng_acl	N					N					N					N						
Rotavap_trng_acl			N					N					N					N				
Turbovap_trng_acl			N					N					N					N				
METABOLOMICS																						
GC-MSMS-met_acl							N	N														
UPLC-Tribrid Orbitrap MS_acl**																						
UPLC-PDA-MS-MS_trng_acl							N															

Confirmation of training appointment via email is required with supervisor/PI in CC.

Please send training request to the relevant email address
ACL.SOLIDS@kaust.edu.sa
ACL.INORGANICS@kaust.edu.sa
ACL.ORGANICS@kaust.edu.sa
ACL.METABOLOMICS@kaust.edu.sa

X Training scheduled
N Training on Need basis
* Basic training required
** Opened only for approved users