



ECMO COURSE



ACADEMIC AFFAIRS AND TRAINING CENTER, NAJRAN HEALTH CLUSTER, 66278, KING SOUD ROAD, 8354, NAJRAN, SAUDI ARABIA

تجمع نجران الصحي
Najran Health Cluster

COURSE DIRECTOR



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Course Director :
Dr Islam Seada

Course Coordinator :
Turki Al Zahrani



1st Day - 04 /12 /2025

TIME	TOPIC			SPEAKER
7:00 am – 08:00 am	Registration			
08:00 am – 08:10 am	Welcoming & Course Overview			Dr. Islam Seada
08:10 am – 08:30 am	Introduction of History of ECMO			Dr. Abdullah Shwail
08:30 am – 08:50 am	Circuit Overview – Cannulas, Tubing & Blender			Dr. Islam Seada
08:50 am – 09:10 am	Membrane Lung & Machine Pump			Dr. Islam Seada
09:10 am – 09:30 am	Physiology & Configuration of ECLS			Dr. Mohammed Bahis
09:30 am – 09:50 am	Oxygen delivery-gas transfer in membrane lung			Dr. Mohammed Bahis
09:50 am – 10:00 am	BREAKTIME			
10:00 am – 10:20 am	VA & VV ECMO Configuration			Dr. Abdurahman Asiri
10:20 am – 10:40 am	ECMO Cannulation			Dr. Ali Albshabshe
10:40 am – 11:20 pm	Orientation of the Machines & ECMO Machine Configurations A1 + A2 + A3			Main Auditorium B1 + B2 + B3
	MACHINE 1	MACHINE 2	MACHINE 3	ECMO Machine's Preparation and ECMO Machine Priming Demonstration
11:20 am – 12:00 pm	Orientation of the Machines & ECMO Machine Configurations A1 + A2 + A3			Main Auditorium A1 + A2 + A3
	MACHINE 1	MACHINE 2	MACHINE 3	ECMO Machine's Preparation and ECMO Machine Priming Demonstration
12:00 pm – 01:00 pm	LUNCH & PRAYER			
01:00 pm – 2:30 pm	Consultation, Counseling & Initiation Stations			
	Group A	Group B	Group C	
02:30 pm – 3:00 pm	Debriefing of the Day			Course Team

2nd Day - 05/12/2025

TIME	TOPIC			SPEAKER
08:00 am – 08:20 am	Patient Selection & Initiation of VV ECMO			Dr. Abdallah Al Showail
08:20 am – 08:40 am	Modes of Ventilation – Lung Protection-Sedations while on ECMO Support			Dr. Ali Albshabshe
08:40 am – 09:00 am	Hemodynamics & Pressure Monitoring while on VV ECMO			Dr. Islam Seada
09:00 am – 09:20 am	VV ECMO Maintenance & Troubleshooting Management including Recirculation			Dr. Mohammed Bahis
09:20 pm – 09:40 pm	Anticoagulation in ECMO			Dr. Abdallah Al Showail
09:40 pm – 10:00 pm	Weaning of VV ECMO			Dr. Abdurahman Asiri
10:00 am – 10:30 am	Break			
SIMULATIONS (30 mins/station) 10:30 am – 10:30 pm	Class 1	Class 2	Class 3	Auditorium B1, B2, B3
	Cannulation skill station	Cannulas Orientation & Safe Connection to circuit Station	Priming ECMO Machines station	3 VV ECMO Case Scenarios
	10:30 am – 11:00 am	A1	A2	
11:00 am – 11:30 pm	A2	A3	A1	
11:30 pm – 12:00 pm	A3	A1	A2	
12:00 pm – 01:00 pm	LUNCH & PRAYER			

SIMULATIONS (30 mins/station) 01:00 am – 02:30 pm	Class 1	Class 2	Class 3	Auditorium A1, A2 , A3
	Cannulation Simulation	Cannulas Orientation & Safe Connection to Circuit	Priming ECMO Machine	3 VV ECMO Case Scenarios
01:00 am – 01:30 am	B1	B2	B3	
01:30 am – 02:00 pm	B2	B3	B1	
02:00 pm – 02:30 pm	B3	B1	B2	
02:30 pm – 03:30 pm	Interactive Case Scenario			
03:30 pm – 04:00 pm	Debriefing & End of day			

3rd Day - 06/12/2025

TIME	TOPIC			SPEAKER
08:00 am – 08:15 am	Patient Selection of VA ECMO – Initiation of VA ECMO			Dr. Islam Seada
08:15 am – 08:30 am	Hemodynamic and Pressure Monitoring on VA ECMO			Dr. Ali Albshabshe
08:30 am – 08:45 am	VA ECMO Maintenance – Differential Oxygenation – LV Distention			Dr. Hassan Masloom
08:45 am – 09:00 am	Weaning VA ECMO			Dr. Ali Albshabshe
09:15 am – 09:30 am	Coming off ECMO emergently (forced ECMO decannulation)			Dr. Islam Seada
09:30 pm – 09:45 pm	ECMO Complication			Dr. Abdurahman Asiri
09:45 pm – 10:00 pm	Evidence Base for ECMO			Dr. Hassan Masloom
10:20 am – 10:30 am	Break			
SIMULATIONS (30 mins/station) 10:30 am – 12:00 pm	Class 1	Class 2	Class 3	Auditorium B1.B2.B3
	Pump Failure (3 Sub-group)	Air Embolus	Gas Failure	3 Case Discussions Dr.Hasan + Dr.Shwail + Dr.Islam
	A1	A2	A3	
	A2	A3	A1	
11:30 am – 12:00 pm	A3	A1	A2	
12:00 pm – 01:00 pm	LUNCH & PRAYER			

TIME	TOPIC			SPEAKER
SIMULATIONS (30 mins/station) 01:00 pm – 04:00pm	Class 1	Class 2	Class 3	Auditorium A1, A2, A3
	Drainage Insufficiency	Air Embolus	Pump Failure (3 Sub-group)	
01:00 pm – 01:30 pm	B1	B2	B3	3 Case Discussions Dr.Hasan + Dr.Shwail + Dr.Islam
01:30 pm – 02:00 pm	B2	B3	B1	
02:00 pm – 02:30pm	B3	B1	B2	
02:45 pm – 03:30pm	Case Senario			Course Team
03:30 pm – 04:00pm	Debriefing & End of day			Course Team

4th Day - 07/12/2025

TIME	TOPIC			SPEAKER
08:00 am – 08: 15 am	Physiotherapy & Rehabilitation			Dr. Abdurahman Asiri
08:15 am – 08:30 am	High Risk PCI and Arterial Decannulation of VA ECMO :			Dr. Islam Seada
08:30 am – 08:45 am	Nursing Role in ECMO			Ms.Zakiah
08:45 am – 09:00 am	Nursing RT Model in ECMO Patient			Mr. Ali Shaiban
SIMULATIONS (30 mins/station) 09:00 am – 10:00 pm	Class 1	Class 2	Class 3	Auditorium B1.B2.B3
	Drainage Insufficiency	Refractory Hypoxemia in VV ECMO	Circuit Disruption Accidental Decannulation – Arterial Kink	Renal Replacement Therapy during ECMO Run : Dr. Ahmed Omar ECCOR2 Station
	A1	A2	A3	
	A2	A3	A1	
09:00 am – 09:30 am	A3	A1	A2	
09:30 am – 10:00 pm	BREAK			
SIMULATIONS (30 mins/station) 10:30 am – 02:30 pm	Class 1	Class 2	Class 3	Auditorium A1.A2.A3
	Drainage Insufficiency	Refractory Hypoxemia in VV ECMO	Circuit Disruption Accidental Decannulation – Arterial Kink	Renal Replacement Therapy during ECMO run : Dr. Ahmed Omar ECCOR2 Station
	B1	B2	B3	
	B2	B3	B1	
10:00 am – 10:30 am	B3	B1	B2	
10:30 am – 11:00 am	LUNCH & PRAYER			
11:00 am – 11:30 am				
11:30 am – 12:30 pm				

4th Day - 07/12/2025

TIME	TOPIC					
SIMULATIONS 12:30 pm – 01:30 pm	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
	A1	A2	A3	B1	B2	B3

SIMULATIONS 01:30 am – 02:30 pm	ECPR and Transportation Scenario
02:30 am – 03:00 pm	Closing and End of Course



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