******ECMO (extracorporeal membrane oxygenation) is a complex and ever-changing intensive therapy within healthcare. Using a didactic/simulation structure and guidelines written by the Extracorporeal Life Support Organization (ELSO), this program is designed to train healthcare professionals (RN, RRT, MD, DO, CCP) who manage and care for patients while on ECMO. The training course will focus on providing the tools and information necessary to develop strategies for safe patient management.

**General Information**

REGISTRATION and cancellation policy:

All cancellation requests need to be submitted by **May 6, 2019 via email to** uihc-ecmo@uiowa.edu**.** Requests for refunds after May 6, 2019 will not be granted. No refunds will be given for partial attendance.

LOCATION:

The training course will take place in the University of Iowa Hospitals and Clinics (200 Hawkins Drive, Iowa City, IA 52242).

* Didactics: 4999 JPP (the Heart and Vascular Center Conference Room)
* Simulations: 7th floor JPP in the Simulation Lab

HOTEL:

Hilton Garden Inn Iowa City Downtown University
328 S Clinton St
Iowa City, IA 52240
Phone: 319/248-6100

The room rate is $139 excluding taxes. Registrants are responsible for making their own arrangements and may do so by contacting hotel reservations at (319) 248-6100. When making room reservations, be sure to state you are attending the “ECMO Training Program” in order to receive the special conference room rate. The conference rate will be available until May 3, 2019. There will be a free shuttle for the participants to take from the hotel to the hospital each day.

Transportation:

* [The Eastern Iowa (Cedar Rapids) Airport](https://flycid.com/) is located two miles west of I-380, approximately 20 miles north of Iowa City. Car rentals are available at the airport.
* [The Quad Cities (Moline, Illinois) Airport](http://www.qcairport.com/) is located approximately 55 miles east of Iowa City on I-74 just off I-80. Car rentals are available at the airport.

Airport SHUTTLE Service:
The Cedar Rapids Airport Shuttle is $70 roundtrip for the first person and $10 for each additional person (round trip) or $38 one way. You may contact them by phone at 1-800-725-8460 or online [www.crshuttle.com](http://www.crshuttle.com)

HOSPITAL PARKING:

<https://uihc.org/parking-and-map>

Continuing Education Credit

The University of Iowa Roy J. and Lucille A. Carver College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical

education for physicians.

Physician: The University of Iowa Roy J. and Lucille A. Carver College of Medicine designates this live activity for *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurse: 25.2 contact hours will be granted by University of Iowa Hospitals and Clinics Department of Nursing (IBN Approved Provider #34). Participants must attend the entire program to receive full credit. Questions concerning nursing credits should be directed to the Nursing Clinical

Education Center at (319) 356-4304.

DISCLOSURE POLICY: Everyone in a position to control the content of this educational activity will disclose to the CME provider and to attendees all relevant financial relationships with any

commercial interest.

The University of Iowa prohibits discrimination in employment, educational programs, and activities on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual. The university also affirms its commitment to providing equal opportunities and equal access to university facilities. For additional information on nondiscrimination policies, contact the Director, Office of Equal Opportunity and Diversity, the University of Iowa, 202 Jessup Hall, Iowa City, IA, 52242-1316, 319-335-0705 (voice), 319-335-0697 (TDD), diversity@uiowa.edu.

Individuals with disabilities are encouraged to attend all University of Iowa sponsored events.

If you are a person with a disability who requires an accommodation in order to participate in this program, please contact the Continuing Medical Education Division in advance at 319-335-8599 or the ECMO Program at 319-356-8875.

**Schedule:**

**Monday, June 3rd**

**0730 Registration** Jennifer Crumley, MSN, RN

**0800 Welcome, History, and Overview** Jennifer Crumley, MSN, RN

**0840 Introduction to ECMO** Archit Sharma, MBBS

**0920 Physiology of ECMO** Gregory Schmidt, MD

**1000 Break**

**1020 VV ECMO and Respiratory Failure** Gregory Schmidt, MD

**1120 Jigsaws** Kristina Rudolph, BSN, RN

**1140 Introduction to Simulations**Jennifer Crumley, MSN, RN; Kristina Rudolph, BSN, RN

**1200 LUNCH**

**1300 Chaos Simulation/Debriefing** Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1345 Hands-On Circuit Review (Rotaflow/Cardiohelp/Centrimag)** Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1500 Break**

**1515 Q&A/Jeopardy** Jennifer Crumley, MSN, RN; Kristina Rudolph, BSN, RN

**1600 Adjourn**

**Tuesday, June 4th**

**0800 Cannulation** Sharon Beth Larson, DO, MS, FACOS

**0840 ECMO Components and Circuitry** Kristina Rudolph, BSN, RN

**0920 VA ECMO and Cardiac Failure** Archit Sharma, MBBS

**1000 Break**

**1020 Patient Management: Coagulation and Sedation** Jennifer Crumley, MSN, RN;Kristina Rudolph, BSN, RN

**1120 Case Reviews** Jennifer Crumley, MSN, RN;Kristina Rudolph, BSN, RN

**1200 LUNCH**

**1300 Hands-On: Pump Review** Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1330 Simulations (1-2)**Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1500 Break**

**1515 Simulations (2-4)**Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1700 Adjourn**

**Wednesday, June 5th**

**0800 Program Development** Elizabeth Moore, MBA, RN, BSN

**0840 Mobility and ECMO** Danielle Bodensteiner, DPT

**0920 ECMO Emergencies** Jonathan Simmons, DO

**1000 Break**

**1020 Ethics** Aditya Badheka, MBBS, MS

**1120 Case Reviews** Jennifer Crumley, MSN, RN;Kristina Rudolph, BSN, RN

**1200 LUNCH**

**1300 Hands-On: Pump Review** Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1330 Simulations (4-6)**Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1500 Break**

**1515 Simulations (6-8)**Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1700 Adjourn**

**Thursday, June 6th**

**0800 Hands-On: Pump Review** Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**0830 Simulations (6-8)**Jennifer Crumley, MSN, RN; Elizabeth Moore, MBA, RN, BSN; Kristina Rudolph, BSN, RN

**1200 LUNCH**

**1300 Exam**

OBJECTIVES:

1. Identify key concepts of ECMO methodology and physiology
2. Recognize medical and mechanical emergency and identify strategies to prevent and/or manage
3. Demonstrate an understanding of patient populations appropriate for ECMO support
4. Identify and apply underlying principles necessary for proper patient management
5. Demonstrate effectively how to use varying mechanical circulatory equipment used in ECMO
6. Interpret patient laboratory data and formulate appropriate interventions
7. Describe weaning and trialing criteria for both VA & VV ECMO
8. Determine adequacy of ECMO support for both VA & VV ECMO
9. Identify caregiver roles
10. Integrate closed-loop communication
11. Practice bedside technical and assessment skills
12. Differentiate between multiple cannulation strategies and identify the risks associated with cannulation procedures
13. Describe the process for selecting cannulas
14. List the benefits of awake ECMO
15. List the benefits of mobility on ECMO
16. Outline the need for anticoagulation in ECMO
17. List the methods for LV unloading
18. Explain the role of vasoactive/inotropic medications in VA ECMO

**Course Faculty:**

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|  | **Jennifer Crumley, MSN, RN**ECMO Course Co-Coordinator |
|  | **Kristina Rudolph, BSN, RN**ECMO Course Co-Coordinator |
| Badhekaa | **Aditya Badheka, MBBS, MS**Clinical Assistant ProfessorStead Family Department of Pediatrics – Critical CareMedical Director, PICU |
|  | **Danielle Bodensteiner, DPT**Staff Physical TherapistDepartment of Rehabilitation Therapies |
|  | **Sharon Beth Larson, DO, MS, FACOS**Clinical Assistant ProfessorDepartment of Surgery-Cardiothoracic Surgery |
|  | **Elizabeth A Moore, MBA, RN, BSN**Associate Director, Heart and Vascular Center |
| GSchmidt | **Gregory Schmidt, MD**ProfessorDepartment of Internal Medicine – Pulmonary, Critical Care and Occupational MedicineDirector, Critical Care ProgramsAssociate Chief Medical Officer |
| Archit Sharma, portrait | **Archit Sharma, MBBS**Clinical Assistant ProfessorDepartment of Anesthesia – Cardiothoracic Anesthesia, Critical Care Medicine, and Transplant Anesthesia |
| Jonathan Simmons | **Jonathan Simmons, DO**Clinical Associate ProfessorDepartments of Anesthesia and Emergency MedicineSurgical Director, CVICUMedical Director, Special Isolation Unit, Admissions and Transfer Center |

**Course Planning Committee members:**

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|  | **Jennifer Crumley, MSN, RN**ECMO Course Co-Coordinator |
|  | **Kristina Rudolph, BSN, RN**ECMO Course Co-Coordinator |
|  | **Amy Black**Administrative SpecialistHeart and Vascular Center |
|  | **Julie Vance**Administrative CoordinatorHeart and Vascular Center |