

615A Medical Simulation

This course is available to UC Irvine 4th year students only
Students must obtain permission from the course coordinator who will obtain faculty approval based on availability prior to enrollment in this course

Course Name Medical Simulation
Course Director Cameron Ricks, MD

Academic Year 2020-2021

1. Course Director, Coordinator and General Administrative Information

FACULTY AND STAFF

Name	Office Location	Phone	Email
Director: Cameron Ricks, MD	101 The City Dr. S., Bldg. 53, Orange, CA 92868	949-824-8228	cricks@uci.edu
Coordinator: Keith Beaulieu	836 Health Science Road. Simulation Center Room 2118 Irvine, CA 92697	949-824-8228	kbeaulie@uci.edu

DESCRIPTION

This medical simulation experience allows students to gain experience in curriculum development in medical simulation under the guidance of a faculty simulation instructor. Students will observe simulations, perform literature review, develop a unique simulation course, and teach using simulation technology

PREREQUISITES

This course is intended for 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM).

RESTRICTIONS

This course is intended for 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM).

COURSE DIRECTOR

Dr. Ricks is the course director for 615A. He is the Director of the UC Irvine Medical Education Simulation Center at the University of California Irvine. He also serves as

the Simulation Fellowship Director and Director of Medical Student Simulation Education. Dr. Ricks is a board certified anesthesiologist and Associate Professor with the Anesthesiology Department. He functions as the Perioperative Operations Officer within the department. Dr. Ricks conducts research in both Anesthesia and in medical simulation as a training modality for medical education. Dr. Ricks is a Maintenance of Certification in Anesthesia (MOCA) instructor, has led numerous multidisciplinary simulation trainings, and led multiple simulation instructor training courses.

Dr. Ricks was born in Los Angeles area and raised in the San Diego Area. Dr. Ricks has been with the University of California Irvine since 2009. He earned a BA in Biology and Business Economics from the University of California Santa Barbara. He attended medical school at American University of the Caribbean and residency at George Washington University Hospital Washington, DC where he served as Chief Resident.

Dr. Ricks lives in Orange County. His hobbies include surfing and exercising.

Keith Beaulieu is the course coordinator for 615A course. Keith Beaulieu is the Director of Operations for UC Irvine Medical Education Simulation Center at the University of California's School of Medicine. He is responsible for managing and directing all aspects of medical simulation for medical students, residents, faculty, and community. In addition, he is also responsible for managing the budget and scheduling.

Keith Beaulieu has been with the University of California Irvine since 2013. Preceding this position, he was a medic in the United States Air Force and held numerous positions and roles including primary medic, senior medic, education and training management, instructor, and program manager/program lead.

Keith was born and raised in Dunedin, FL and has earned an associate's degree in Allied Health Sciences from the Community College of the Air Force, a Bachelor of Science degree in Emergency Management from University of Maryland, Bachelor of Arts degree in Business Administration specializing in management, and an MBA from Saint Leo University.

Keith has received numerous award from his military career including: Meritorious Service Medal, Air Force Commendation Medal, Air Force Achievement Medal, Army Achievement Medal, Iraq Campaign Medal, and Afghanistan Campaign Medal. Keith, his wife Charlene, and their daughter Mackenzie, live in Riverside, CA.

INFORMATION FOR THE FIRST DAY

Who to Report to First Day: Keith Beaulieu

Location to Report on First Day: Medical Education Simulation Center, room 2118,

2nd floor Building 836

Time to Report on First Day: 8:30

SITE: UC Irvine SOM

DURATION: 4 weeks

Scheduling Coordinator: UC Irvine students please call (714) 456-8462 to make a scheduling appointment.

Periods Available: The time of the course must be pre-approved by the elective director at least 3 months prior to the start of the course. No exceptions.

NUMBER OF STUDENTS ALLOWED: 1 per month

WHAT STUDENTS SHOULD DO TO PREPARE FOR THE COURSE

Students will need to read the required articles for the rotation in advance.

<https://sites.uci.edu/medsim/education/simulationinstructortrainingcourse/>

Seven (7) articles.

COMMUNICATION WITH FACULTY

Questions about logistics should be directed to the Course Coordinator. Direct questions, comments, or concerns about the course can be directed to the Course Director. Contact information and office location are at the beginning of this document.

The Course Director is also available to meet in person. Please email kbeaulie@uci.edu to arrange an appointment. To ensure that your email will not be lost in the large volume of email received, please use the following convention for the subject line:

SUBJECT: COURSE NAME, your last name, your issue (e.g. XXX, Smith, Request for appointment)

2. Course Objectives and Program Objective Mapping

The following are the learning objectives for the 615A course. Students are expected to demonstrate proficiency in these areas in order to satisfactorily complete the course. In addition, the extent of a student's mastery of these objectives will help guide the course evaluation and grade.

Course Objective	Mapped UCI School of Medicine Program Objective	Sub Competency	Core Competency
The student will be able to gain knowledge on the role of medical simulation technology in graduate medical education as well as undergraduate medical education.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease;	Disease Pathogenesis and Treatment	Knowledgeable
	A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical diagnosis, communication and clinical reasoning processes;	Basic Clinical Skills	Knowledgeable
	A-4. Knowledge of population health, epidemiology principles and the scientific basis of research methods relevant to healthcare;	Population Health and Epidemiology	Knowledgeable
	A-5. Knowledge of medical practice, including health care economics and health systems impacting delivery and quality of patient care.	Medical Practice	Knowledgeable
The student will be able to demonstrate how to develop new educational curricula.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease;	Disease Pathogenesis and Treatment	Knowledgeable

	<p>A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical diagnosis, communication and clinical reasoning processes;</p>	Basic Clinical Skills	Knowledgeable
	<p>A-4. Knowledge of population health, epidemiology principles and the scientific basis of research methods relevant to healthcare;</p>	Population Health and Epidemiology	Knowledgeable
	<p>A-5. Knowledge of medical practice, including health care economics and health systems impacting delivery and quality of patient care.</p>	Medical Practice	Knowledgeable
<p>The student will understand how to teach colleagues using simulation technology.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease;</p>	Disease Pathogenesis and Treatment	Knowledgeable
	<p>A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical diagnosis, communication and clinical reasoning processes;</p>	Basic Clinical Skills	Knowledgeable

	A-4. Knowledge of population health, epidemiology principles and the scientific basis of research methods relevant to healthcare;	Population Health and Epidemiology	Knowledgeable
	A-5. Knowledge of medical practice, including health care economics and health systems impacting delivery and quality of patient care.	Medical Practice	Knowledgeable
The student will gain exposure to research studies and literature in medical simulation.	B-4. The ability to search the medical literature, including electronic databases, and to locate and interpret up-to-date evidence to optimize patient care;	Evidence-based Medicine	Skillful

Key Topics:

- Medical simulation
- simulation technology
- medical education
- crisis resource management

3. Course Resources

TEXTS AND READINGS: SUGGESTED

All text/articles can be found:

<https://sites.uci.edu/medsim/education/simulationinstructortrainingcourse/>

- 1. Introduction to Debriefing by Roxane Gardner, MD, MPH, DSc (2013)
- 2. Debriefing with Good Judgment by Jenny Rudolph, PhD et. al. (2007)
- 3. The Importance of Cognitive Errors... by Pat Croskerry, MD, PhD (2003)
- 4. Cognitive Load in Health Professions by J. van Merriënboer et. al. (2010)
- 5. Role of Debriefing by Ruth Fanning, Mb and David Gaba, MD (2007)

- 6. Cognitive Load Theory by Frazer, et al. (2015)
- 7. Simulation and its Role in Medical Education by Datta et al. (2012)

TEXTS AND READINGS: SUPPORTING AND REVIEW

Additional text/articles can be found:

<https://sites.uci.edu/medsim/education/medical-simulation-documents-and-papers/>

4. Major Exams, Assignments and Grading

MANDATORY SESSIONS

Will be determined by the course director or coordinator based on operational schedule.

MAJOR ASSIGNMENTS AND EXAMS

1. Medical simulation scenario
2. Pilot medical simulation scenario and make changes as necessary

GRADING

Medical Students are graded using the following scale: Honors (H), Pass (P), Fail (F) and Incomplete (I). For further information, please review the [Grading Policy](#).

Students will be given a grade of Pass in medical simulation if the following requirements are fulfilled:

1. Observe and assist in operating/facilitating at least 40 hours of simulation courses during the month in a variety of specialties (at least 2 resident simulations or high-fidelity team training simulations).
2. Develop a new educational program scenario utilizing simulation technology to contribute to the at UC Irvine School of Medicine curriculum. The course may be a new course involving simulation or may integrate simulation into an existing course in the medical school curriculum. Effort spent in developing and writing the curriculum should involve at least 120 hours of the month, or the remaining hours in the month, assuming 8 hour days.

The student will receive an Honors grade if the following requirements are fulfilled:

1. Prepare a manuscript, scenario or abstract to submit for publication or presentation at a regional or national scientific meeting (e.g. MedEd Portal, Simulation in Healthcare, AAMC, WestJEM, or other simulation).

Note:

Acceptance of the presentation at a scientific meeting is not a requirement for the Honors grade, however, the final project must be finalized and ready for

submission in the format required by the specific meeting or journal. The final product must be of publication quality. The course director will be available to review the student's writing and provide input throughout the rotation as needed to assist the student with accomplishing this project.

Requirements for "Pass": To receive a grade of Pass, students must demonstrate successful performance in all the following areas:

- Knowledge
- Patient Care
- Practice-Based Learning
- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Requirements for "Honors": To receive a grade of Honors, students must demonstrate exceptional performance all the following areas:

- Knowledge
- Patient Care
- Practice-Based Learning
- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Grounds for "Incomplete": You will not be issued a grade until all elements of the course have been completed.

REMEDIATION

Remediation, if needed will be designed by the Course Director to suit the issue at hand.

Grounds for "Fail": You will receive a grade of "Fail" if the requirements for passing the course have not been met. Please refer to the [Grading Policy](#) for the impact of the "Fail" grade to the transcript.