

605G Cardiovascular Intensive Care Unit

This rotation is not accepting international students.

Course Name Cardiovascular Intensive Care unit
Course Director Greg Yoshikawa

Elective at a Glance		
Available to: [] UCI MS3 students [X] UCI MS4 students [X] Extramural Students		
Duration: 4 weeks	Number of Students: 2	Grading: H / P / F
Periods available: Throughout the year.		

1. Course Director, Coordinator and General Administrative Information

FACULTY AND STAFF

Name	Office Location	Phone	Email
Course Director: Greg Yoshikawa, MD	UCI Medical Center 101 The City Dr. S.Bldg. 53 Orange, CA 92868	714-456-5518	gyoshika@hs.uci.edu
Course Coordinator: Minnie Trinh	UC Irvine Health Building 53, Room 205		minniet@hs.uci.edu

DESCRIPTION

This is a four-week rotation offered at UCI Medical Center. Students function as sub-interns, becoming integral members of the ICU team, and serve as primary caregivers under supervision.

PREREQUISITES

UCI students must have successfully completed the first-, second- and third-year curriculum or have completed the third-year clerkship within the same area as the ICU they are enrolling in.

RESTRICTIONS

This course is intended for fourth-year students enrolled in the undergraduate medical education program at UCI School of Medicine.

COURSE DIRECTOR

Dr. Greg Yoshikawa is an anesthesiologist and critical care medicine specialist. He completed both his residency and fellowship at UCI and stayed as a full-time faculty member after graduation. He attends both the SICU and CVICU at UCIMC.

INFORMATION FOR THE FIRST DAY

Who to Report to on First Day: Contact site coordinator.

Location to Report on First Day: Building 53, Room 101 (Education Center)

Time to Report on First Day: 8:30am

SITE: UCI Medical Center, Douglas Hospital (Building 1), 7th Floor, Room 7220

DURATION: 4 weeks

Scheduling Coordinator: UCI students please email comsched@hs.uci.edu to make a scheduling appointment.

Extramural students enrolled at a U.S. LCME medical school must use VSAS to apply. To apply please refer to the [Visiting Student Learning Opportunities](#) website.

Periods Available: Throughout the year.

NUMBER OF STUDENTS ALLOWED: Two per rotation.

WHAT STUDENTS SHOULD DO TO PREPARE FOR THE COURSE

Clinical Responsibilities of the Student: Students function as sub-interns, becoming integral members of the ICU team and serve as primary care givers under supervision.

Patient Care Responsibilities: Students function as sub-interns, becoming integral members of the ICU team and serve as primary care givers under supervision.

Call Schedule of the Student: Students are expected to work the same shifts as their team.

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 minniet@hs.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. 605G, Smith, Request for appointment)

2. Course Objectives and Program Objective Mapping

The following are the learning objectives for the 605G 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
Assess patients' overall status – the ABC's.	A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical diagnosis, communication and clinical reasoning processes.	Structure and Function of Organ Systems	Knowledgeable
Improve basic skills in chest radiograph review, intravenous and arterial cannulation, order writing, and oral case presentation.	B-3. The ability to articulate a cogent, accurate assessment and plan, and problem list, using diagnostic clinical reasoning skills in all the major disciplines.	Patient Management	Skillful
Interpret and manage hemodynamic variables.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease. B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.	A-2: Disease Pathogenesis and Treatment B-5: Patient Management	A-2: Knowledgeable B-5: Skillful
Interpret normal and abnormal ECGs.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.	A-2: Disease Pathogenesis and Treatment B-5: Patient Management	A-2: Knowledgeable B-5: Skillful

	B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.		
Assess adequacy of ventilation/oxygenation and treat dysfunction.	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>
Understand fluid, electrolyte, and acid-base management.	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>

<p>Understand blood product transfusion indications and concerns.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>
<p>Recognize and manage shock and shock states.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>

<p>Recognize and manage single and multiple organ dysfunction.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>
<p>Understand inherent post-operative changes and problems.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>
<p>Perform sedation and pain management skills.</p>	<p>A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p> <p>B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating</p>	<p>A-2: Disease Pathogenesis and Treatment</p> <p>B-5: Patient Management</p>	<p>A-2: Knowledgeable</p> <p>B-5: Skillful</p>

	for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.		
Understand social and ethical aspects of critically ill patient care and end-of-life issues.	C-3. Sensitivity and awareness of diverse cultures, health beliefs and social factors impacting patient health and illness.	Cultural and Social Awareness	Altruistic
Understand ventilator management and modes.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease. B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.	A-2: Disease Pathogenesis and Treatment B-5: Patient Management	A-2: Knowledgeable B-5: Skillful
Perform ACLS.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease. B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.	A-2: Disease Pathogenesis and Treatment B-5: Patient Management	A-2: Knowledgeable B-5: Skillful

Perform ATLS.	A-2. Knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease. B-5. The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and well-being, to identify and treat disease early where appropriate and to advise on lifestyle practices.	A-2: Disease Pathogenesis and Treatment B-5: Patient Management	A-2: Knowledgeable B-5: Skillful
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3. Course Resources

TEXTS AND READINGS: SUGGESTED

Your syllabus is the FCCS, the main text provided by the Society of Critical Care Medicine for medical students. You are required to study it during your 4-week rotation, discuss any questions with your faculty, and will be tested based on it on your end-of-rotation written MCQ exam. Contact Minnie Trinh minniet@hs.uci.edu to collect the book at the beginning of the rotation, and make sure you return it at the end.

TEXTS AND READINGS: SUPPORTING AND REVIEW

- Handbook of Critical Care - Jesse B. Hall (September, 2009)
- Critical Care Medicine: The Essentials - John J. Marini and Arthur P Wheeler (November - 2009)
- The Washington Manual of Critical Care - Marin H Kollef, Timothy J Bedient, Warren Isakow, and Chad A Witt (October - 2007)
- Irwin and Rippe's Intensive Care Medicine 6th edition - Richard S Irwin and James M. Rippe (August - 2007)
- The ICU Book, 3rd Edition - Paul L. Marino (September - 2006)
- Manual of Perioperative Care in Adult Cardiac Surgery, 5th edition – Robert M. Bojar (January – 2011)

4. Major Exams, Assignments and Grading

MANDATORY SESSIONS: N/A

MAJOR ASSIGNMENTS AND EXAMS

Simulation: There will be a mandatory Critical Care Simulation Session conducted from 1 to 4 PM at the UCI Medical Education Simulation Center. It is usually scheduled on a Tuesday or Thursday afternoon on the 2nd or 3rd week of your rotation. You will receive an email informing you about the exact date and time. Please make sure that you have familiarized yourself with the sections in the FCCS book pertaining to shock, hemodynamic failure and monitoring, treatment of shock and vasopressors, causes, types and diagnosis of respiratory failure, and initiation and basics of mechanical ventilation. Familiarity with these topics will ensure that you have a more productive and interactive simulation session. The simulation session is located at:

Medical Education, Bldg. 836, Irvine, CA 92697-4089

Phone: 949.824.8835

A map can be found at: <http://www.medsim.uci.edu/contact01.html>

For all of us, the ICU is the best ILU (Intensive Learning Unit). The diversity and intensity of pathology to which you are exposed is incomparable to any other clinical setting. You are privileged to take care of the sickest patients in the hospital. Cherish the experience and do your best to make the most of it.

Your faculty are there to make your learning experience as meaningful and effective as possible. If there are problems hampering your growth, approach them. Show enthusiasm and interest; you will be taken seriously and will witness reciprocal enthusiasm. Try to carry 2-3 patients at each time. You will learn more if you expose yourself to a variety of pathophysiologic processes, so work with your team to try and avoid repetitive cases. Every patient on the team is "your patient". Pay attention to all the patients on rounds. You will multiply your experience. Offer to do short 5-10 minute presentations on topics relevant to your patients. The best way to master a topic is to teach it.

GRADING

Your final grade is a composite based on your end-of-rotation written MCQ exam (usually administered on the Friday of week 4) and your clinical evaluations. Clinical evaluations are based on motivation, knowledge of clinical medicine, clinical skills, and personal characteristics. A passing grade requires daily attendance at rounds, attendance and participation in lectures, discussions, and clinical assignments, as well as satisfactory scores for the categories listed in the clinical evaluations. Absences will be excused only upon approval by the course director. Comments will be made available for your Dean's Letter. The written examination is comprised of 50 multiple-choice questions which are derived directly from the FCCS content. Students can be eligible for Honors if they receive a satisfactory score on all clinical evaluation categories, score at least 90% on the MCQ examination, have perfect attendance, and show exceptional skills in a number of clinical categories and prepare a relevant presentation. Students who receive a failing grade will meet with

the course director to discuss options for re-evaluation that may include additional time in the ICU along with a written reexamination. A score of 70% or greater is required on the MCQ exam in order to pass the course.

Attendance: You are expected to participate as a team member every weekday in addition to one day every weekend, other than the last weekend. You are encouraged to take call with one of your team interns; you should coordinate the details regarding hours of attendance and the call schedule with your site clerkship director and ICU faculty.

Absence: With prior notification, you are allowed a maximum of three days of absence during your four-week rotation. You will need to reschedule your rotation for another date if you miss more than three days.

Any questions or issues regarding your critical care clerkship grade should be presented to your course director and the grading faculty.

You have 30 days from the date of the grade to appeal any aspect of this grade. Please contact your Clerkship/course Director should you have any questions.

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.

REMEDICATION

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.