

## 547 Emergency Medicine

This course is available to UC Irvine 4th year students only  
Core Rotation for UC Irvine Students

**Course Description:** The objective of the Emergency Medicine course is to introduce students to the principles of acute care medicine. Students have the opportunity to evaluate patients and formulate effective testing and treatment strategies. Active participation in patient care and procedural skills are emphasized. The course consists of experiences in patient care, assigned readings from emergency medicine references, weekly conferences, and a simulation session.

**Department:** Emergency Medicine

**Prerequisites:** Successful completion of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year curriculum.

**Restrictions:** UC Irvine School of Medicine students only (Extramural Students, please see 630D)

**Course Director:** Wirachin Hoonpongsimanont, MD, UC Irvine Medical Center, Department of Emergency Medicine, 101 The City Drive, South, Building 1A, Room 1009, Route 128, Orange, CA 92868, (714) 456-5239, [whoonpon@uci.edu](mailto:whoonpon@uci.edu)

**Assistant Course Director:** Alisa Wray, MD, UC Irvine Medical Center, Department of Emergency Medicine, 101 The City Drive, South, Building 1A, Route 128, Orange, CA 92868, (714) 456-7916, [awray@uci.edu](mailto:awray@uci.edu)

**Instructing Faculty:** Isabel Algaze, MD; Michael J. Burns, MD; Bharath Chakravarthy, MD; Carrie Chandwani, MD; J. Christian Fox, MD; Wirachin Hoonpongsimanont, MD; Maxwell Jen, MD; Robert Katzer, MD; Shadi Lahham, MD; Mark Langdorf, MD; Shahram Lotfipour, MD; Christopher McCoy, MD; Megan Osborn, MD; Scott Rudkin, MD; Sangeeta Sakaria, MD; Carl Schultz, MD; Jeffrey Suchard, MD; Shannon Toohey, MD; Warren Wiechmann, MD; Andrew Wong, MD; Alisa Wray, MD

**Who to Report to on First Day:** Site Coordinator

**Time to Report on First Day:** 1<sup>st</sup> Monday of the rotation at 8am for Orientation at 333 The City Blvd. W., St. 640. Orange, CA, 92868.

**Course Coordinator:** Sun Ito, UC Irvine Medical Center, 101 The City Drive South, Bldg. 22A, Rm. 2108, 714-456-5176, [slito@uci.edu](mailto:slito@uci.edu)

**Site:** The Emergency Department at the University of California Irvine, Medial Center

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

**Periods Available:** Every 2 weeks

**Duration:** 2 consecutive weeks

**Number of Students:** Varies throughout the academic year; please contact registrar for more information

**UC Irvine students** must officially enroll for the course by contacting the Scheduling Coordinator via email or phone (714) 456-8462 to make a scheduling appointment.

**Course Objectives:** Students are expected to conduct thorough but directed histories and physicals, and formulate a plan for workup and care of the patients that they see. Procedural skills (such as suturing, paracentesis, etc.) are taught and supervised on a case by case base, as needed, based on the patient's complaints and need for evaluation. All students are expected to introduce themselves as student physicians, and conduct themselves in a professional manner. These expectations are communicated to the students at the in-person orientation; however, by their fourth year of school, students are already conscious of these expectations. Students interact on a one to one basis with residents and faculty; their progress is monitored during each shift.

**Key Topics:**

- Ability to take directed history and do complete physical examination
- Formulate plan of workup and treatment
- Present cases directly to senior resident and attending physicians
- Learn techniques to improve procedure skills
- Follow patients from initial exam until disposition from the Emergency Department

**Competencies:**

- The ability to competently conduct a medical interview and counseling to take into account patient health beliefs, patient agenda and the need for comprehensive medical and psychosocial assessment
- The ability to competently perform a complete and organ-system-specific examination including a mental health status examination
- The ability to articulate a cogent, accurate assessment and plan, and problem list, using diagnostic clinical reasoning skills in all the major disciplines
- The ability to search the medical literature, including electronic databases, and to locate and interpret up-to-date evidence to optimize patient care
- The ability to practice effective preventive medicine by identifying, addressing and advocating for strategies to maintain health and wellbeing, to identify and treat disease early where appropriate and to advise on lifestyle practices
- The ability to function effectively within the context of complexity and uncertainty in medical care

**Attitudes & Commitments:**

- Honesty and integrity reflecting the standards of the profession, in interacting with colleagues, patients, families and professional organizations
- Professional behaviors reflecting compassion and respect for patient privacy, altruism and a commitment to comprehensive, holistic medical care
- Sensitivity and awareness of diverse cultures, health beliefs and social factors impacting patient health and illness
- The commitment to seek knowledge and skills to better serve the needs of the underserved in their communities

**Scheduling:** The site coordinator will create your schedule. You may swap shifts with other students if both approve and you notify the coordinator and Dr. Hoon. For every 2 weeks you are on service, you will have a total of 8 shifts. The R-3 and attendings have access to this schedule from any computer and expect the students to adhere to this. You are expected to work in the ED for any shifts assigned to you during your two-week rotation (please note: the rotation starts on Monday morning and end on Sunday night).

**Prior to your First Day:** You will receive an information packet via email from the Site Coordinator. Please review the packet and complete prerequisites prior to the rotation start date. Read this syllabus and browse some of the reading material on Canvas.

**Attire:** UC Irvine SOM approved scrubs. We recommend professional attire for conferences. You can also wear UC Irvine SOM scrubs.

**On Shift Activities:** This is a brief overview of how patients should flow through the Emergency Department (ED) & your responsibilities in the department.

Students will work under the direct supervision of EM attendings and R3, it is intended that the students participate actively in the evaluation and management of patient cases assuming more responsibility as their level of comfort and expertise develops. Students are not to be observers on this rotation. There are no minimum or maximum numbers of patients to be seen in a typical clinical session. This should be determined by the student's abilities, time, and their supervising physician.

**PATIENT SIGN-OUT:** Patient sign outs from the medical student go directly to the R3/attending and not to the oncoming student.

**SHIFT COMPLETION:** When appropriate, the attending will indicate when you may leave.

It is your responsibility to ensure you allocate time to complete all work-up with your patients and ensure a final disposition (admit, discharge, transfer, etc.) has been made.

Before you leave your shift, make sure that:

- Log all cases and procedures at the end of each shift.
- Print out at least one (1) medical documentation and review it with the attending. Give the documentation and the score card back to attending to be placed in Dr. Hoon's ED mailbox.
- Attending/R3 evaluates you using the end-of-shift evaluation on QUALTRICS (link in EPIC). It is recommended that you ask the attending to complete the evaluation about two hours before your shift ends.

### **Mandatory Attendance**

**SHIFT ATTENDANCE:** Before you miss a shift for medical reasons please call the senior resident on duty at 714-456-5705. All absences will be documented and grades will be held until the absence is made up.

**SCHEDULE CHANGES:** As mentioned above, schedule changes can be done by exchanging shifts with peers. Please keep the following in mind when considering schedule changes: Student lectures and all other educational experiences require attendance by students. Students cannot do more than one shift per day and cannot follow the evening shift by a morning shift. Shift change requests should be e-mailed to the Site Coordinator and Dr. Hoon and are subject to approval.

**JOURNAL CLUB:** Usually scheduled on the third Thursday of the month, from 6:00 PM – 10:00 PM. Attendance is encouraged for all students. The location varies and is usually the house of an ED attending or resident. You are excused from your shift to attend Journal Club but need to return to your shift as soon as it has ended.

**CONFERENCE:** Each Wednesday, the students will attend EM resident conference from 9:00 AM to noon. Breakfast is usually provided. We also have allotted time after the conference for student lecture. You will receive a reminder e-mail with schedule details.

**SIMULATION:** You will attend at least one simulation session during your rotation. The session is held at the Medical Education Building in the UCI campus. Date and time will be determined and informed during orientation.

**ATTIRE:** Your white coat, student ID and stethoscope are required at all times. Shirts/ties for males and slacks or skirts for females are preferred but clean hospital scrubs under your white coat are optional during night shifts.

### **Average Course Hours Weekly Summary:**

- 3 hours - Conference
  - 2 hours - Lecture
  - 4 hours - Simulation
  - 36 hours - Patient-Care Activities
- = 46 hours TOTAL**

### **Content Theme Integration:**

- Communication
- Decision Making
- Ethics
- Family Violence/Abuse
- Geriatrics
- Health Care Systems
- Pain Management
- Patient-Health Education

- Preventive & Health Maintenance
- Substance Abuse

**Recommended and Required Reading:**

At the minimum you should know what tests are needed and how to initially manage the following complaints/diagnoses: DKA, Atrial Fibrillation, hypertensive crises, acute bleeding, hyperkalemia, pneumonia, asthma, altered mental status, seizure, bowel obstruction, and sepsis

Try the following resources (in no semblance of order):

- Critical Care Medicine Tutorials, Life in the Fast Lane, CDEM Curriculum and Dr. Smith's ECG Blog are great online resources.
- The Clinical Practice of Emergency Medicine, fourth edition, by Ann Harwood-Nuss et al.
- Emergency Medicine, A Comprehensive Study Guide, fifth edition, by Judith E Tintinalli et al.
- Clinical Procedures in Emergency Medicine, third edition, by Roberts & Hedges et al.
- The Radiology of Emergency Medicine, fourth edition, by John H Harris, et al.
- Hamilton, Sanders, Strange and Trott. Emergency Medicine: An Approach to Clinical Problem- Solving, second edition by Saunders. This book is best used for reference during your rotation. June has a copy that you can check out at the beginning of your rotation but has to be returned on your last Friday of your rotation to her. You are responsible for hand delivering the book to the office during working hours in good condition without additional marks in it prior to completion of the rotation. From Hamilton, the sections below are recommended reading, with the highlighted sections as required reading during the rotation from Hamilton, but a similar chapter in any EM book will do.

Ch.	Title	Pgs.
1	Introduction to Emergency Medicine	3-16
2	Airway Management	17-38
3	Cardiopulmonary Cerebral Resuscitation	39-59
4	Shock	60-74
5	Acute Abdominal Pain	77-96
6	Acute Gastrointestinal Bleeding	91-112
7	Acute Diarrhea	113-128
8	Chest Pain	131-153
9	Syncope	154-169
10	Hypertension	170-182
11	Rash	185-206
12	Anaphylaxis	209-216
13	Approach to HIV in the Emergency Department	217-232
14	Febrile Adults	235-256
15	The Poisoned Patient	259-285
16	Alcohol Intoxication	286-299
17	Heat Illness	300-312
18	Hypothermia	313-324
19	Sickle Cell Disease	327-345
20	Diabetes	351-362
21	Acute Metabolic Acidosis and Metabolic Alkalosis	363-378
22	Epistaxis	381-388
23	Acute Sore Throat	389-403
24	Earache	404-416

25	The Red Painful Eye	417-435
26	Febrile Infants	439-453
27	Stridor	454-467
28	Dehydration	468-480
29	Acute Low Back Pain	483-502
30	The Swollen and Painful Joint	503-514
31	Altered Mental Status	517-534
32	Headache	535-551
33	Seizures	552-565
34	Stroke	556-580
35	Psychobehavioral Disorders	583-599
36	Domestic Violence	600-619
37	Acute Dyspnea	623-638
38	Wheezing	639-656
39	Acute Pelvic Pain	659-676
40	Vaginal Bleeding	677-690
41	Multiple Blunt Trauma	693-722
42	Penetrating Trauma	723-740
43	Abdominal Trauma	741-757
44	Chest Trauma	758-773
45	Open Injuries to the Hand	774-793
46	Closed Injuries of the Upper Extremity	794-813
47	Lower Extremity Injury	814-842
48	Head and Neck Trauma	843-869
49	Wound Care	870-891

**Official Grading Policy:**

**ASSIGNED SHIFTS & SHIFT EVALUATIONS:** Satisfactory completion of 8 shifts is required to pass the rotation and prompt attendance is required. An attending or R3 will complete an evaluation for you on QUALTRICS (linked in EPIC). An evaluation for each of the 8 shifts (8 evaluations total) is required to pass the rotation.

**STUDENT LECTURES:** Wednesday Conferences will be held in 333 The City Blvd. W, St 640 Conference Room from 9:00 AM to noon. (Conferences can change without notice, please check your emails daily for updates). Please note that student lecture attendance and participation is required and will be reflected in your final grade. There is a student lecture after conference. You are responsible to sign in to get credit for attending conferences.

**PATIENT LOG:** A complete patient log of all patients seen should be updated on New Innovations. This is required to pass the rotation.

**PATIENT PROCEDURE LOG:** When you perform procedures you will need to have them signed off by the attending/R3. This form must be turned in to the Site Coordinator after the completion of your rotation in the ED. There isn't a minimum required amount of procedures, but if an opportunity comes up where there is a procedure to be done, we encourage you to take the initiative.

**HONORS GRADE:** Honors criteria for 547, required 2-week clerkship:

- Present a case presentation (lightning talk)
  - The case presentation will require an appropriate review of the literature and must be completed before the end of the rotation. The Course Director, Dr. Hoon ([whoonpon@uci.edu](mailto:whoonpon@uci.edu)) is available by email or in person to help you prepare for the case presentation. All presentations must be e- mailed to the Course Director for credit.
- Receive clearly outstanding on more than 50% of all evaluations on shift evaluations

**GRADING CRITERIA**

- 70% - Clinical Performance (as reflected by shift evaluations)
- 10% - Attendance and Participation at Weekly Student Conference
- 5% - Medical Student SIM
- 10% - Complete assignments before Medical Student Educational Sessions
- 5% - Complete student lightning talk (for students pursuing Honors)

**Rotation Feedback:** The Course Director and Assistant Course Director encourage all students to meet with them to go over their progress and overall clerkship evaluation, if they are concerned. Students may either make an appointment or contact the directors immediately after the Wednesday educational sessions.

**End Rotation Evaluation:** The rotation evaluation will be available online. We appreciate your feedback and take them very seriously for future rotation improvements. You will have the opportunity to select the faculty and resident that contributed most to learning during your shifts. Please send the 3 names to the Site Coordinator.