

630V Occupational and Environmental Medicine]

Elective at a Glance		
Available to: [x] UCI MS4 students [x] UCI MS3 students [x] Extramural Students		
Duration: 2-4 weeks	Number of Students: 1 at a time	Grading: H / P / F
Periods available: Not available first 2 weeks of July, last 2 weeks of December, first week of January.		

1. Course Director, Coordinator and General Administrative Information

FACULTY AND STAFF

Name	Office Location	Phone	Email
Director: Alya Khan, MD, MS, FACOEM	856 Health Scieces Rd (Quad), Rm 3626, Irvine, CA	949-824-8641	alyak@hs.uci.edu
Coordinator: Alyssa Abalos	856 Health Scieces Rd (Quad), Suite 3700, Rom 3711, Irvine, CA	562-881-2561	alimfuec@hs.uci.edu

UCI School of Medicine
Curriculum and Educational Policy Committee

Scheduling Coordinator: Alyssa Abalos	856 Health Scièces Rd (Quad), Suite 562-881-2561 3700, Rom 3711, Irvine, CA
	alimfuec@hs.uci.edu

DESCRIPTION

The Occupational and Environmental Medicine elective will introduce the medical student to the capabilities needed to maintain and improve health, enhance the performance, and improve safety of those working in any occupation, and also to protect and promote the health of families and communities, which might be exposed to environmental impacts of occupational activities. Students will also be introduced to environmental medicine, environmental justice, impacts from climate change, and social determinants of health as it relates to work and the environment.

PREREQUISITES

This course is intended for 3rd and 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM).

MS3s needs department approval before enrolling in rotation.
Extramural students must be in the final year of undergraduate medical education

RESTRICTIONS [Update the following text as necessary.]

UCI students:

This course is intended for 3rd and 4th-year students enrolled in the undergraduate medical education program at University of California, Irvine School of Medicine (UCISOM). However, 1st and 2nd year students can have the option to rotate if approved by the UCISOM.

MS3s needs department approval before enrolling in rotation.

Extramural Students:

Extramural students enrolled at a U.S. LCME medical school must use VSAS to apply.

To apply please refer to this website <https://students-residents.aamc.org/attending-medical-school/electives-andmake-courses/applying-away-electives-vsas/>

This course can only accept international students from schools with formal affiliation agreements with UCISOM.

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.

Enrollment priority will be given to UCI students.

COURSE DIRECTOR

Dr. Alya Khan has worked in higher education since 2014 and is the Program Director for the Occupational and Environmental Medicine Residency and Associate Clinical Professor at the University of California, Irvine School of Medicine. She completed her residency in Internal Medicine from Hackensack UMC Mountainside and Occupational Medicine from University of California, Irvine, and holds dual board certifications from the American Board of Internal Medicine and the American Board of Preventive Medicine. In addition, she holds a Master's degree in Environmental Toxicology from the University of California, Irvine. She is a Fellow of the American College of Occupational and Environmental Medicine and is Second-Vice President for the Western Occupational and Environmental Medicine Association. Dr. Khan's clinical work is at the Center for Occupational and Environmental Health which provides clinical and preventive services to local and regional employers, conducts worksite surveillance programs, as well as provides toxicology consultations. Her passion includes providing up-to-date, valuable educational offerings for the OEM community.

Alyssa Abalos is the course coordinator for the Occupational and Environmental Medicine course. Alyssa Abalos graduated in Public Health from the University of California, Irvine. She has been the Residency Coordinator for the Occupational and Environmental Medicine Program for over 2 years and part of UCI for over 10 years. She is responsible for supporting and providing the needs of the residents and Program Director, Dr. Alya Khan.

INFORMATION FOR THE FIRST DAY

Students will need to meet the Course Director at the Center for Occupational and Environmental Health (site listed below) on the first day of the rotation (usually a Monday) at 8:30 AM. Students are expected to come on time and dress professionally with their white coat and come prepared with a stethoscope on the first day. The student will spend time with the course director to review the schedule, goals/objectives, as well as the interests of the students and to complete baseline survey.

SITE

This will vary on the day. Sites listed below

Center for Occupational and Environmental Health (COEH) 19722 Macarthur Blvd,
Irvine, CA 92617 (free parking available in parking lot)

UCI Medical Center Occupational Health Pavillion 3

Long Beach Veteran Affairs Occupational Health

Susan and Samuelli College of Health Sciences Building 856 Health Sciences Rd Room 3515 or Suite 3700, Irvine, CA. (Students can obtain a parking pass from Course Coordinator). Desk will be provided to student in Suite 3700 for duration of elective.

DURATION

2-4 weeks [or hours if more appropriate]

SAMPLE SCHEDULE

Please include a sample schedule for each week of the elective
Courses must have at least 30 hours of scheduled clinical requirements or responsibilities for each week of credit.

Please see attached sample schedule

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 except for first 2 weeks of July, last 2 weeks of December, and first week of January.

NUMBER OF STUDENTS ALLOWED

1 per rotation

WHAT STUDENTS SHOULD DO TO PREPARE FOR THE COURSE

The medical student will act as an integral member of the treatment team along with the preceptor and Occupational Medicine resident. The University of California, Irvine Occupational Health Clinic is an active business entity and students must act in a professional and courteous manner at all times. As part of the training team, students must provide timely and accurate information to patients and behave in a manner that will encourage growth of the OM Clinic. The clinics provide acute, sub-acute and chronic care for patients with occupational injuries and illnesses. The clinics also serve various businesses and government organizations in the region with services including fitness-for-duty evaluations, Commercial Driver Medical Evaluations (CDME), hazardous chemical medical evaluation, pre-placement medical evaluations, and other specialty requested services. Students are expected to arrive with enough time to begin seeing patients at 8:30 AM, on assigned days unless directly otherwise by the preceptor. This may require coming in earlier to review patient records and charts. The student will be involved with the care and management of patients by staffing with an attending and resident. This includes follow up and management of medical decisions based on ordered

labs, images, consultation reports, and other services or tests. The student may be required to complete patient evaluations that they have started. Students will also gain familiarity with work status notes as they will likely encounter this in practice regardless of specialty. Similar processes to be followed at the COEH and LBVA clinics though the types of exams will vary. There may also be opportunities for worksite visits in Southern California. Most worksite visits take place in August/September. This is an educational and fun experience for students and residents to learn more about worker health and safety and environmental concerns as well as an opportunity to learn directly from safety professionals and workers. This rotation requires traveling between the various clinical sites and the Susan and Samuelli College of Health Sciences and possible worksite visits, and students must be willing and able to drive themselves to these sites at their own expense, or arrange alternate transportation.

Students will benefit from reading the following material in advance of the rotation:

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 Alyssa Abalos 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: Occupational and Environmental Medicine Elective, 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 XXX 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
Participate in a supervised evaluation, diagnosis, and treatment of patients with occupational and	A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical	Medical interview Basic Clinical Skills	Knowledgeable Skillful

environmental disorders arising from a variety of risks or exposures by the end of the rotation.	diagnosis, communication and clinical reasoning processes; B-1. 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		
Be able to discuss the social determinants and medical determinants of health that influence human health effects due to climate change by the end of the rotation.	A-4. Knowledge of population health, epidemiology principles and the scientific basis of research methods relevant to healthcare;	Population Health and Epidemiology	Knowledgeable
Perform an environmental exposure history and occupational exposure history by the end of the rotation.	B-1. 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;	Medical Interview	Skillful
Participate in a supervised evaluation of fitness for work and definition of work-related risks for individuals to be placed or continued in a wide variety of jobs, utilizing knowledge of physical and mental requirements of work	A-3. Knowledge of basic clinical skills required to meet the skills objectives, including interviewing, physical diagnosis, communication and	Basic Clinical Skills	A-3. Knowledgeable

activities, including potential hazards of the work environment by the end of the rotation.	clinical reasoning processes;		
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3. Course Resources

CANVAS COURSE ORGANIZATION

EHS 297 Advanced Topics in Occupational Toxicology. Material is usually sent via email directly to participants.

TEXTS AND READINGS: SUGGESTED

Ladou 6th edition Chapters: 1 (The Practice of Occupational Medicine), 2 (The Occupational and Environmental Medical History),
Levy/Wegman Chapters: 2 (Occupational and Environmental Health Equity and Social Justice), 29 (Climate Change)

TEXTS AND READINGS: SUPPORTING AND REVIEW

ACOEM Occupational Medicine Practice Guidelines (online) <https://www.mdguidelines.com/>,
Guides to the Evaluation of
Permanent Impairment (available in clinic), ATSDR case series, Current Occupational and Environmental Medicine (available via OEM PD),

ADDITIONAL RESOURCES (optional)

The National Institute for Occupational Safety and Health (NIOSH) Total Worker Health Program

<https://www.cdc.gov/niosh/twh/default.html>

Firefighters:

<https://www.cdc.gov/niosh/docs/2007-133/pdfs/2007-133.pdf?id=10.26616/NIOSH PUB2007133>

<https://www.cdc.gov/niosh/hhe/reports/pdfs/1994-0390-2822.pdf>

<http://www.med-tox.com/court.html>

FISHEP (Food flavoring surveillance exams):

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<https://archive.cdph.ca.gov/programs/ohb/Documents/flavor-guidelines.pdf>

<https://www.dir.ca.gov/title8/5197.html>

<http://www.nejm.org/doi/full/10.1056/NEJMoa020300#t=article>

<https://www.thoracic.org/professionals/clinical-resources/clinical-cases/workplace-spirometry-early-detection-benefits-individuals,-worker-groups-and-employers.php>

Coffee roasting

<https://www.cdc.gov/niosh/topics/flavorings/processing.html>

<https://www.cdc.gov/niosh/hhe/reports/pdfs/2015-0147-3266.pdf>

http://deohs.washington.edu/sites/default/files/documents/Employees_Employers_diacetyl_FINAL_July_1.pdf

<http://onlinelibrary.wiley.com/doi/10.1002/ajim.22533/abstract>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4715657/>

OEM in general:

Case studies: <https://www.atsdr.cdc.gov/csem/csem.html>

Webinars: <https://www.woema.org/webinars>

Podcast: “WOEMA Podcast” <https://www.woema.org/podcasts>

American College of Occupational and Environmental Medicine: <https://acoem.org/>

Genetic Information Discrimination: <https://www.eeoc.gov/laws/types/genetic.cfm>

4. Major Exams, Assignments and Grading

MANDATORY SESSIONS

Session Title	Location
Advanced Topics in Occupational Toxicology Fridays 1:30-3:30 pm	856 Health Sciences Rd (Quad), Room 3515, Irvine, CA

- There may be other educational sessions assigned depending on the time of the year of the rotation such as interdisciplinary clinical case conferences held in conjunction at UCI OEM residents with UCLA students in Industrial Hygiene, Occupational Health Nursing, and Epidemiology.

MAJOR ASSIGNMENTS AND EXAMS

No exams. Baseline and end of rotation survey to be completed. Short term projects may be included based on gaps/interest of the students.

GRADING

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

Only MS3 and MS4 courses are eligible for Honors.

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.*

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.*