TEL AVIV UNIVERSITY אוניברסיטת תל אביב

School of Public Health

Summer Institute of Advanced Epidemiology and Preventive Medicine

Selected Topics in Environmental and Occupational Health
From Worker Health to Citizen Health

July 9-13, 2017 | Course No. 0158.1266

Course Instructors:	Nicola Murgi (UoP), Elizabeth Fireman (TAU), Ido Morag (Shenkar), Varda Shalev (TAU), Tamar Berman (MOH), Rafi Korenstein (TAU), Alex Goldberg (TAU), Hila Yad Shalom and others
Date & Time:	July 9-13, 2017 | S, M, Th 8:30-13:00 / T, W 8:30-13:30
Final Exam:	July 14, 2017 | 9:00-11:00 | ~30 multiple choice questions
Location:	Sackler Faculty of Medicine, Tel Aviv University

Pre-requisites & Intended Audience

No pre-requisites.

The course is intended for Master's and PhD level students or above.

Academic Credit & Course Requirements

2 Academic Credits (4 ECTS). Participants must pass the final exam with a grade of 60 (D). Noncredit participants will receive a certification of participation and are not required to take the final exam, but are expected to participate.

Course Description

The course will introduce to the new rapid growth economies, urbanization, health systems crises and "big data" that are causing fundamental changes in social structures and systems including health. These forces for change have significant consequences for occupational and environmental medicine and will challenge the specialty to think beyond workers and workplaces as the principal locus of innovation for health and performance. The trends that are placing great emphasis on upstream strategies for addressing the complex systems dynamics of the social determinants of health will be summarize here. Major changes in occupational and environmental diseases will be presented, due to changes in materials (e.g. chemicals, nanomaterials), people (e.g. demographics, skills), processes (e.g. assembly line, automation), laws (e.g. occupational/environmental regulation), and science and technologies that altered the nature of work on multiple occasions. These transformations will show the opportunity for occupational and environmental medicine to perform new services with added value to workers and employers beyond providing acute medical care for workplace injuries and diseases.

Learning objectives:

At the end of this this course participants should be able to:

1. Describe the general concepts of the future of occupational and environmental diseases.
2. Understand the prevention of diseases from the ergonomic perspective.
3. Be involved in the new concepts of immunology and occupational and environmental diseases.
4. Understand the use of Big Data for better health.

5. To elucidate the appearance of new materials, technologies and nanoparticles and how to bio-monitor population for toxicants.
6. Understand the innovative approach form the effects of climate changes.
7. Be involved in law health and public policy to promote new occupational and environmental regulation.

Course Timetable

Sunday, July 9 (Day 1) - Emerging Morbidities?	
08:30-08:45	Welcome and Introductions
08:45-10:00	Learning from the Past so that We Can Prepare for the Future of Occupational and Environmental Disease **Lecturer: Nicola Murgi**
10:00-10:30	Break
10:30-12:00	Occupational Musculoskeletal injuries and their prevention: the ergonomic perspective **Lecturers: Ido Morag**
12:00-12:15	Break
12:15-13:00	Evolving Immunologic Concepts and Occupational and Environmental Lung and Skin Disease: Mechanisms, Diagnosis and Potential Interventions **Lecturers: Lizi Fireman**
Monday, July 10 (Day 2) - Science and Technology	
08:30-10:00	Using Big Data for better health **Lecturers: Varda Shalev**
10:00-10:30	Break
10:30-12:00	Crowdsourcing in pharmaceutical development and healthcare **Lecturers: Sharon Fireman-Shoresh**
12:00-12:15	Break
12:15-13:00	Newly Recognized Factors in Occupational and Environmental Disease: All that Glitters is not Idiopathic **Lecturers: Nicola Murgi**
Tuesday, July 11 (Day 3) - Science and Technology	
08:30-10:00	Population Biomonitoring for Toxicants: Findings from Israel in the International Context **Lecturers: Tamar Berman**
10:00-10:30	Break
10:30-12:00	Nanomaterials: Toxicity, not Simply a Matter of Size **Lecturers: Rafi Korenstein**
12:00-12:15	Break
12:15-13:30	Panel Discussion **Lecturers: All**

Wednesday, July 12 (Day 4) - Effect of climate change on health: an innovative approach	
08:30-10:00	Environmental Bio-Engineering: A New Frontier **Lecturers: Alex Goldberg**
10:00-10:30	Break
10:30-12:00	Novel Technologies to Mitigate Global Warming and its Negative Health Impacts **Lecturers: Noam Gressel**
12:00-12:15	Break
12:15-13:00	Study tour of the Porter School of Environmental Studies Building **Lecturers: All**
Thursday, July 13 (Day 5) – Laws	
08:30-10:00	Promoting New Occupational and Environmental Regulation – Thinking Globally, Acting Locally **Lecturers: Hila Yad Shalom**
10:00-10:10	Break
10:10-11:40	Case Studies in Occupational Lung Disease: Dental Technician, Caesarstone worker. **Lecturers: Lizy Fireman**
11:40-11:50	Break
11:50-12:40	Panel Discussion: Caesarstone:, Law, Health, and Public Policy **Lecturers: Various Panelists**
12:40-13:00	Certificate ceremony and class photo
Friday, July 14 (Final Exam)	
09:00-11:00	Room 201, Sackler Faculty of Medicine (Teaching Assistants will be present)