

מבוא לטוקסיקולוגיה

Introduction to Toxicology

סמסטר ב' תשע"ו 10:15-11:45 יום ד'

Course Introduction:

Toxicology is the study of how exogenous exposure affects human physiology and health. This course will provide an overview of basic toxicological principles as well as discuss organ specific toxicity. The students will learn how to utilize the toxicological literature to be able to estimate the risk to public health from exposure to toxic substances. The students will use this knowledge and apply it to real world case scenarios in order to understand the toxic effect of common occupational and environmental hazards.

A. Course Instructor:

Yonah Amster MD MPH (Course Coordinator) Email: eamster@post.harvard.edu
Cell: 052-615-7544 Office hours: Wednesday 10:15am- 11:15am

Yonah is an epidemiologist and physician specializing in environmental and occupational medicine. He studied environmental and occupational health at the Harvard School of Public Health where he completed an MPH and post-doctoral training in environmental epidemiology. He came to Israel as a Fulbright Scholar and his current research includes health effects of heavy metal exposure, air pollution and the built environment.

B. Lecture Topics:

Lecture	Topics
1	General Principles 1: Toxic substances, Occupational toxicology, Environmental toxicology
2	General Principles 2: Absorption, distribution, excretion
3	General Principles 3: Toxicity testing and Risk assessment, on-line tools
4	Occupational toxicants: Metals, pesticides, solvents
5	Carcinogenicity and Geno-toxicity
6	Debate: Kishon river cancer case debate

7	Society of Toxicology Emerging Issues` Lecture
8	Organ system 1: Developmental toxicity
9	Organ system 2: Neurotoxicity and psychotoxins
10	Organ system 3: hematotoxicity
11	Organ system 4: respiratory toxicity
12	Organ system 5: Hepatotoxicity and nephrotoxicity
13	Course conclusion and review

C. Course grade:

- a. 1/3 Quiz (Lectures 1-5)
- b. 1/3 Class lecture (כיתה הפוכה)
- c. 1/3 Class participation

D. Course text/readings:

Casarett & Doull's Toxicology: The Basic Science of Poisons, Eighth Edition 8th Edition

E. Resources:

- a. <http://www.toxicology.org/education/pw/presentations.asp>
- b.