

## **Reproductive Epidemiology – sociodemographic, environmental and clinical determinants**

### **1. Course Details**

Course Format: Lectures and discussions

Language: English

Number of Academic Credits: 4

Summer semester 2024- 11-16.8.2024

Target population: Graduate students (local & international) and faculty members at the School of Public Health, Faculty of Medical and Health Sciences and throughout the campus.

### **2. Course Teaching Staff:**

Prof. Pam Factor-Litvak - Vice Chair of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA

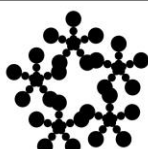
Prof. Shelley Ehrlich - Division of Biostatistics and Epidemiology  
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA

Prof. Liat Lerner –Head, School of Public Health, Faculty of Medicine, Tel Aviv University, Israel

### **3. Course Description**

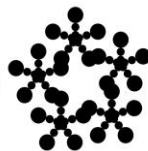
The aim of the course is to acquire knowledge and skills regarding designing, conducting and analyzing epidemiological research in the scopes of reproduction, infertility and maternal and child health. In addition, up to date research in the field of reproductive epidemiology including sociodemographic, environmental and clinical determinants will be explored and discussed.

The outcomes of the course will include the ability to critically review epidemiological studies in women and children's health research and implement the results in public health policy.



#### 4. Course Specific Topics

<b>Sunday, August 11<sup>th</sup></b> <b>8:30-16:30</b>	<b>Topic- Foundations</b>	<b>Lecturer</b>
08:30-10:00	Introduction- Women and Children's Health	Prof. Lerner
10:30-12:00	Female and Male Biology	Prof. Lerner
12:45- 14:15	Introduction -Reproductive Epidemiology	Prof. Litvak- Factor
14:30-16:00	Methodology – preferred study designs – strengths and limitations	Prof. Ehrlich
<b>Monday, August 12<sup>th</sup></b> <b>8:30-16:30</b>	<b>Topic- Outcome Terminology</b>	
08:30-10:00	Pregnancy complications	Prof. Ehrlich
10:30-12:00	Infant mortality and morbidity	Prof. Litvak- Factor
12:45- 14:15	Maternal mortality	Prof. Lerner
14:30-16:00	Evaluation of an article	Prof. Litvak- Factor and Prof. Lerner
<b>Tuesday, August 13<sup>th</sup></b>	<b>University closed</b>	
<b>Wednesday, August 14<sup>th</sup></b> <b>8:30-16:00</b>	<b>Topic – Environmental Exposures</b>	
08:30-10:00	Socio-demographics and inequalities/disparities	Prof. Lerner Liat
10:30-12:00	Pesticides	Prof. Litvak-Factor
12:45- 14:15	EDC	Prof. Ehrlich
14:30-16:00	Air pollution	Prof. Litvak-Factor



<b>Thursday, August 15<sup>th</sup></b> <b>8:30 – 16:00</b>	<b>Topic – Infertility</b>	
08:30-10:00	Types of infertility	Prof. Ehrlich
10:30-12:00	Infertility treatments	Prof. Lerner
12:45- 14:15	Global policies regarding infertility	Prof. Litvak-Factor and Prof. Lerner
14:30-16:00	<b>New approaches - Exposomics</b>	Prof. Lauren Patrick
	<b>Final project preparation</b>	
<b>Friday, August 16<sup>th</sup></b> <b>8:30 – 13:30</b>	<b>Lifespan outcomes</b>	
08:30-10:30	Short term outcomes of infertility treatments (Congenital malformations) – Class Discussion	Prof. Litvak-Factor, Prof. Ehrlich, Prof. Lerner
11:30-13:30	Long term outcomes of infertility treatments (cancer)-Class Discussion	Prof. Litvak-Factor, Prof. Ehrlich, Prof. Lerner
	<b>Final project preparation</b>	

**Grade:**

**30% participation in class discussions**

**70% Final Project**