

Theoretical and practical courses-Illam University of Medical Sciences

- * Introduction of the course: Biostatistics methods
 - * School of Health
 - * Department: Department of Epidemiology
 - * Course Name: Statistical Methods in Epidemiology
 - * Field and Degree: Master of Epidemiology
 - * Day and time: Monday 8-10
 - * Venue: Virtually
 - * Number and type of unit (theoretical): 2
 - * Prerequisite courses: Statistical methods in epidemiology
 - * Name of the person in charge of the course (course instructor): Dr. Kourosh Sayeh Miri
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- * Office address:

General purpose of the lesson:

- 1- Familiarity with advanced statistical methods in epidemiology

* **Specific or partial objectives of the lesson:** The specific objective is better to be written behaviorally (the behavioral objective has an audience, behavioral verb, degree and criteria of the conditions

- 1- The student can describe the sampling methods.
- 2- The student can calculate the relative risk assurance distance and the odds ratio.
- 3- The student can perform direct and indirect matching methods.
- 4- The student can perform confounder control methods without using regression models.
- 5- The student can perform confounders control methods using regression models.

* **Main resources** of the course Main resources (by observing the principles of source writing and giving an address for their preparation, including library, bookstore, Internet ...)

- 1- statistical method in epidemiology
- 2- Statistics for research. Shirly Dowdy and Stanly Wearden

*** Teaching method + teaching aids used:**

Lecture based on problem solving method and teacher supervision over students' work

*** Methods and time of assessment and evaluation of the student and the bar related to each value B:**

Method	Score	Date	Time
writing test	8		14-16

Lesson rules and expectations from students:

Absence of more than three sessions will result in deletion.

Schedule of presentation of the syllabus of statistical methods in epidemiology of the first / second semester.

Session	Time	Topic	lecturer
1	8.30-10.30	An overview of statistical concepts	Dr.sayamiri
2		Random sampling methods	
3		Estimation of sample size in a variety of studies	
4		Relative risk and odds ratio, the benefits of odds ratio over relative risk	
5		Relative risk confidence interval and odds ratio, Woolf'S method	
6		Poisson's assumption for relative danger Katz for relative danger	
7		Calculate sample size using odds ratio Using the methods of sessions 4 to 7 in the Framingham study	
8		Attributable risk variance	
9		Confounder control methods without the use of regression models Direct and indirect matching methods	
10		Midterm exam	
11		Mantel-Hansel test, confidence interval for odds ratio adapted by Woolf method,	
12		Odds ratio adapted to the method, Miettien Test Based Limits Application in paired data Compare other methods	
13		Methods of controlling confounders using regression models	
14		Logistic regression in control of confounders	
15		Methods of controlling confounders using multivariate	

		regression models	
16		Detection function	
17		End of semester exam	