

## **content of atomic Biostatistics course:**

<b>Learning Objectives</b>	<b>Weeks</b>	<b>Course content and topics</b>
The student by finished this chapter should be		
1- Define Statistics and Biostatistics: 2- Distinguish between types of data. 3- Identify <b>type and</b> source of data . 4- Define and distinguish between independent and dependent variables. 5- Define and distinguish between discrete and continuous variables. 6- Define and distinguish between qualitative and quantitative variables. 7- Identify and comparing between Populations and samples.	Week. 1.	<b><u>CHAPTER 1</u> Introduction and some definitions about the statistics, biostatistics, and the differences between them</b>
	Week. 2.	Collection of the data, types of the data, types of variables presentation of the data, numerical presentation, tabular presentation, graphic presentation and mathematical presentation and interpretation and results. Definition of the sample and populations, <b>and</b> the differences between them.
The student by finished this chapter should be.	Week. 3.	<b><u>CHAPTER2.</u> mathematical presentation, calculations of mean, center tendency, calculations of standard deviation, and coefficient of variation.</b>
1. Identify biased samples. 2. Define inferential statistics. 3. Compute the sample mean, variance, standard deviation, and coefficient of variation.	Week. 4.	mathematical presentation, <b>and problems</b>
4. Distinguish between mean, standard deviation, and coefficient.	Week. 5.	mathematical presentation, <b>Example/ problems.</b>
<b>The student by finished this chapter should be.</b>	Week. 6.	<b><u>CHAPTER 3.</u> Probability, definition, Addition rule for portability, probability of throwing two dices. Central Limit Theorem</b>
1 Compute probability in a situation where there are equally likely outcomes.	Week. 7.	<b>Probability, Central Limit Theorem, Example/ problems</b>
2. Apply concepts to cards and dice.	Week. 8.	Midterm exam
3. Compute the probability of two independent events both occurring.	Week. 9.	<b>Central Limit Theorem Example/ problems</b>
4. Compute the probability of either of two independent events occurring.	Week. 10.	<b>Interval estimations, Central Limit Theorem Example/ problems</b>
5. Graph a probability distribution for the mean of a discrete variable		
5. Describe a sampling distribution in terms of "all possible outcomes."		

<p>1. Define inferential statistics.</p> <p>2. Graph a probability distribution for the mean of a discrete variable</p>	<p>Week. 11.</p>	<p><b><u>CHAPTER 4</u> Coefficient interval estimations for the difference between two means Examples.</b></p>
<p>3. Describe a sampling distribution in terms of “all possible outcomes.”</p> <p>4. Do problems that involve conditional</p>	<p>Week. 12.</p>	<p><b>Coefficient interval estimations for the difference between two same means Example/ problems</b></p>
<p>1. Describe a sampling <b>Hypothesis testing.</b></p>	<p>Week. 13.</p>	<p><b><u>CHAPTER 5</u> Hypothesis testing / Examples</b></p>
<p>2.. Describe the role of sampling <b>Hypothesis testing</b> in inferential statistics.</p> <p>3. Define the standard error of the mean.</p>	<p>Week. 14.</p>	<p><b>Hypothesis testing / Examples/ problems.</b></p>

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