

4199 - BIOSTATISTICS										
Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)					
Lectures	Practical	Credits			Theory		Practical Ex.		Total	
32	2	5	25	25	100	-	100	150		
Pre-requisite		Source	U:	Semester	Theory	Test	Total	TW	PR	Gr Total
Nil		MFEX			-	-	-	100	100	200

**Rationale:** The science of statistics has a definite place in the skill sets of Medical Electronics. Technician knowledge of statistical methods opens up new paths of experimental procedures knowledge of Bio statistics will help the student to understand and interpret the facts and findings of medical research.

COURSE CONTENTS		Hrs	Mks
<b>1. INTRODUCTION:</b>		8	12
Meaning of statistics; limitations in statistics; medical statistics: application & uses of Bio statistics as a science. Common statistical terms: variable, constant, observation, observational unit, Data, population, sampling unit, sample parameter, and statistic. Notation for population & sample value.		16	25
<b>2. SOURCES &amp; PRESENTATION OF DATA:</b>			
Sources for collection of medical statistics namely, experiments, surveys, records methods of presentation: Tabulation; frequency distribution drawings for quantitative and qualitative data		10	16
<b>3. MEASURES OF CENTRAL TENDENCY:</b>			
Averages, mean, median, mode		8	10
<b>4. MEASURES OF LOCATION:</b>			
Percentiles, graphic method and Arithmetic method. Application & uses of percentile.		14	25
<b>5. VARIABILITY &amp; ITS MEASURES</b>			
Types of variability Biological real and experimental. Measures of variability of individual observation; range interquartile range, mean deviation, standard deviation		8	12
<b>6. DESIGNING AND METHODOLOGY OF AN EXPERIMENT OR A STUDY:</b>			
Steps and methodology, format for presentation for any research work.		64	100
<b>Total</b>			

#### PRACTICAL: (9 hrs.)

The student is expected to make a study on any of the topic in Bio statistics related to medical survey and prepare a format for presentation.

#### REFERENCE BOOKS

1. Methods in Biostatistics –Dr. B. K. Mahajan.