

# The Islamia University of Bahawalpur

## Course Outlines

**Class: M. Phil- Statistics**

**Semester: I & II (Evening)**

**Course Name: Analysis of Repeated Measurement Designs**

**Course Code:**

**STAT- 32113 (3 Cr. hrs.)**

**Instructor Name:**

**Dr. Rashid Ahmed (A. P)**

<b>Week</b>	<b>Online Lectures No.</b>	<b>Topics Taught</b>
<b>IV</b>	<b>L4</b>	What is RMD? Why we prefer RMDs, Major disadvantage of its usage. Analysis of RMDs manually.
<b>V</b>	<b>L5</b>	Basic logic of construction of cross over designs (COD)
<b>VI</b>	<b>L6</b>	Alternative technique of Analysis of RMDs
<b>VII</b>	<b>L7</b>	Analysis technique of RMDs
<b>VIII</b>	<b>L8</b>	Designs Issues, Selection of models, Mixed effects, Random effect, Difference between repeated measures design and a simple multivariate design, Matched pairs design.
<b>IX</b>	<b>L9</b>	Selection of covariance structure. Different covariance structures and their suitability.
<b>X</b>	<b>L10</b>	Assumptions in RMD analysis. Effect of Violating the Assumption of Sphericity?
<b>XI</b>	<b>L11</b>	Mautchly test for Sphericity and its application manually.
<b>XII</b>	<b>L12</b>	Mautchly test for Sphericity and its application through SPSS
<b>XIII</b>	<b>L13</b>	Correcting for Violations of Sphericity, Box Correction, Lower bound correction, Geisser-Greenhouse correction (1959), Huynh & Feldt Correction (1976).
<b>XIV</b>	<b>L14</b>	Analysis of RMDs on clinical trial
<b>XV</b>	<b>L15</b>	Analysis of RMDs using SPSS
<b>XVI</b>	<b>L16</b>	Revision