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|--|-------------------------------|--|
| <b>Course Name: Basic Statistics</b>   |                               |  |
| <b>Course Code:</b><br>STAT 100  | <b>Course Type :</b> Elective | <b>Course Credits:</b> 3   |
| <b>Class Timings:</b><br>8:00 am – 8:50 am (MWF)   | <b>Section:</b> A             | <b>Online Office Hours (Zoom):</b><br>Monday to Friday- 10:00 to 10:50a.m.<br><b>Zoom Meeting ID :</b> 251 516 6895<br><b>Passcode:</b> 123456 |
| <b>Instructor Name:</b> Mustansar Aatizaz Amjad  |                               |  |
| <p><b>A Note from the Instructor:</b></p> <p>- <i>Policy for in-class students</i></p> <ul style="list-style-type: none"> <li>• Lectures will be delivered in class</li> <li>• Lecture and reading Material will be uploaded on Moodle</li> <li>• Assignments will be provided on Moodle and submissions are also required on Moodle. Assignment Feedbacks will be uploaded on Moodle.</li> </ul> <p>-<i>Policy for online students</i></p> <ul style="list-style-type: none"> <li>• Zoom Meeting ID will be shared on Moodle (Use the same Meeting ID to join Class)</li> <li>• Lectures will be delivered online during class time</li> <li>• Recorded Lectures will be uploaded on Moodle</li> <li>• Reading Material will be uploaded on Moodle</li> <li>• Assignments will be provided on Moodle and submissions are also required on Moodle. Assignment Feedbacks will be uploaded on Moodle.</li> </ul> |                               |  |
| <p><b>Instructor Contact Details</b></p> <p>Email: <a href="mailto:mustansaramjad@fccollege.edu.pk">mustansaramjad@fccollege.edu.pk</a></p> <p>Office Hours (online): Monday to Friday- 10:00 to 10:50a.m.</p> <p><b>Zoom Meeting ID:</b> 462 816 5805</p> <p><b>Passcode:</b> 123456</p> <p>Guidelines for contacting instructor:</p> <ul style="list-style-type: none"> <li>• Online Meeting</li> <li>• Google hangouts group</li> <li>• If in-person make an appointment via email</li> </ul>   |                               |  |
| <p><b>Course Description:</b></p> <p>Pre-requisites if any:</p> <p>Mode of Instruction: Asynchronous/ Synchronous</p> <p>Mode of peer-to-peer Contact Among Students: online discussion forums</p>   |                               |  |
| <p><b>Main Mode of Instruction:</b> Moodle and Zoom</p> <p><b>Technology Requirements:</b></p> <ul style="list-style-type: none"> <li>• Students need to have a computer/ laptop/ smartphone, calculator and headphones/hand free</li> </ul> <p><b>Technology Etiquettes</b></p> <ul style="list-style-type: none"> <li>• Students are recommended to log in at least 10 minutes before the start of the session to do the necessary checks.</li> </ul>  |                               |  |

- Be sure to name yourself for your slot on the screen. It will make it easy to get a report of the students' attendance. If your slot carries a different name, to rename: click 3 dots near your video window OR in the participants' list, over your name, and click "rename" to make the change
- Please stay muted when not speaking.
- Please turn off your camera during class.
- Be respectful of others' opinion
- If the session is recorded do not post isolated comments that may be taken out of context.

**Considerations for Students with Limited Internet/Technology Access:**

- Student with limited internet connections may send an email to instructor with their concern.

**[OPTIONAL]: Program Objectives Addressed** (which goals of the academic program/department does this course address?)

- A. Demonstrate knowledge about basic statistical concepts, terms and techniques
- B. Analyze various types of data and interpret the results effectively
- C. Think critically about applications of Statistics in various fields
- D. Practice high moral and ethical values in their personal and professional lives and in their communities

**Course objective/learning outcomes**

At the end of the course the student will:

1. Be able to perform arithmetic operations and handle quantitative problems.
2. Identify the types of data and use appropriate methods to collect, summarize, classify and present data.
3. Be able to distinguish between population and sample and identify various types of variables.
4. Be able to calculate different measures of central tendency and dispersion.
5. Be able to understand and calculate index numbers and interpret the results.
6. Be able to understand basics of correlation and fit a free hand trend line to a time series.

**Course Content, Learning Material & Activities Schedule**

| Wk | Topic/ Title                                   | <u>Teaching-Learning Activities</u>   |  | <u>Assessment &amp; Rubrics</u> |
|----|--|---|--|---------------------------------|
|    |  | <b>Synchronous (Simultaneously conducted)</b><br><i>Presentation / Lecture<br/>Live Video-Audio<br/>Small Group Discussion/<br/>Breakout Rooms<br/>In-class quiz<br/>Q&amp;A/ Live Chat</i> | <b>Asynchronous</b><br>(postal/ Moodle/ email)<br><i>Discussion blogs<br/>WhatsApp<br/>Readings<br/>Moodle Quizzes<br/>Assignment Submission<br/>Online Content/ Recordings<br/>Lecture notes/ Annotated PPT<br/>Experiential learning</i> |                                 |
|    |  | In-Person/ Online   | Off-campus and offline   |                                 |
| 1  | Understanding the definition.                  | In-class lecture; Also, on Zoom   | Reading Material, Practice Material, PowerPoint Presentations  |                                 |
|    | Introduction to basic concepts and terminology | In-class lecture; Also, on Zoom   | Reading Material, Practice Material, PowerPoint Presentations  |                                 |

|   |  |                                 |   |              |
|---|--|---------------------------------|---|--------------|
| 2 | Variables, Data collection,                                    | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Quiz 1       |
|   | Data presentation,   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 3 | Classification and Tabulation                                  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Assignment 1 |
|   | Cont..   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 4 | Charts and Graphs: Bar charts and pie-chart                    | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Quiz 2       |
|   | Cont..   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 5 | Introduction to Measures of central tendency. Arithmetic mean, | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
|   |  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 6 | Median, quantiles and mode                                     | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
|   |  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 7 | Geometric mean and Harmonic mean                               | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Assignment 2 |
|   | Cont..   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint               |              |

|                 |   |                                 |   |              |
|-----------------|---|---------------------------------|---|--------------|
|                 |   |                                 | Presentations   |              |
| 8               | Introduction to measures of dispersion.   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
|                 | Absolute and relative measures of dispersion. (range ; quartile deviation and their coefficients) | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| <b>MIDTERMS</b> |   |                                 |   |              |
| 9               | Mean Deviation (with mean and median) and its coefficient   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
|                 | Standard Deviation/ Variance; Coefficient of Variation  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 10              | Bivariate Data and Correlation  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Assignment 3 |
|                 | Cont,   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 11              | Scatter Plot and Free-hand Trend  | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
|                 | Cont.   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |              |
| 12              | Index Numbers, Unweighted Index Numbers   | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations | Case Study   |
|                 | Cont.   | In-class lecture; Also, on Zoom | Reading Material, Practice Material,                          |              |

|    |                                     |                                 |   |  |
|----|-------------------------------------|---------------------------------|---|--|
|    |                                     |                                 | PowerPoint Presentations                                      |  |
| 13 | Weighted Index Numbers              | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |  |
|    | Weighted aggregative method         | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |  |
| 14 | Weighted average of relative method | In-class lecture; Also, on Zoom | Reading Material, Practice Material, PowerPoint Presentations |  |
|    | <b>Revision</b>                     |                                 |   |  |
| 15 | <b>CULMINATING PROJECT</b>          |                                 |   |  |
| 16 | <b>FINAL EXAM</b>                   |                                 |   |  |

**‘Out-of-class’ Study Required (across all 3 categories of students -- those attending in-person, online, or asynchronously)**

1. Students are expected to study 3 hours a week
2. If you have any questions please join online office hours
3. Assignment submissions will be on Moodle

#### **Textbooks, Materials, Supplies and other Resources**

- Mason, Lind, and Marchal, “Statistical Techniques in Business and Economics” McGraw Hill, New York.
- Larry J. Stephens, “Theory and Problems of Beginning Statistics” Schaum’s Outline Series McGraw Hill.
- Anderson, Sweeney and Williams, “Statistics for Business and Economics” 9e Thomson South-Western.
- Prof. Sher Muhammad Ch. And Prof. Dr. Shahid Kamal, Introduction to Statistical Theory Part 1, Ilmi Kitab Khana.

#### **Course Requirements:**

The breakup is as follows: **(may be increase or decrease)**

|                            |             |
|----------------------------|-------------|
| <b>Class Participation</b> | 5%          |
| <b>Assignments:</b>        | 10%         |
| <b>Quizes</b>              | 10%         |
| <b>Midterm exam:</b>       | 25%         |
| <b>Case Study</b>          | 10%         |
| <b>Final term exam:</b>    | 40%         |
| <b>TOTAL</b>               | <b>100%</b> |

#### **[OPTIONAL] Missed Assignments/ Make-Ups/ Extra Credit**

- No delayed assignments.
- No Make-up class and exam
- No retake exam

**Attendance Policy:**

If a student does not attend a minimum of 70% of total classes, he/she will not be permitted to take the final examination in the course.

**Classroom Participation:**

Students must participate in classroom for class activities and may ask questions related to lesson taught.

**Grading Legend**

Below is the grading legend of FCCU (published in all catalogues and available on the FCCU website) as approved by the Academic Council and applies for Fall as well

| Grade | Point Value | Numerical Value | Meaning      |
|-------|-------------|-----------------|--------------|
| A     | 4.00        | 93-100          | Superior     |
| A-    | 3.70        | 90-92           |              |
| B+    | 3.30        | 87-89           | Good         |
| B     | 3.00        | 83-86           |              |
| B-    | 2.70        | 80-82           |              |
| C+    | 2.30        | 77-79           | Satisfactory |
| C     | 2.00        | 73-76           |              |
| C-    | 1.70        | 70-72           |              |
| D+    | 1.30        | 67-69           | Passing      |
| D     | 1.00        | 60-66           |              |
| F     | 0.00        | 59 or below     | Failing      |

**Student Conduct & Other Issues:**

- Consider including ground rules for appropriate classroom interactions, as well as a clear statement of expectations that classroom interactions will remain civil, respectful, and supportive.
- If any student faces any issues or has any concerns regarding the classroom climate and interactions, please feel free to contact VR office [gloriacalib@fccollege.edu.pk](mailto:gloriacalib@fccollege.edu.pk)

**Changes to the Syllabus:**

This syllabus was designed to convey course information and requirements as accurately as possible. It is important to note however that it **may** be subject to change during the course depending on the needs of the class and other situational factors. Such changes would be for your benefit and you will be notified of them as soon as possible.

**Student Support Services**

[Student Counseling Services](#)

[Writing Center](#)

[Mercy Health Center](#)

**Other Useful Policy Documents:**

[Sexual Harassment Policy](#)

[Anti-Corruption Policy](#)

[Academic integrity](#)

[Plagiarism Policy](#)

[Academic Calendar](#)

*I expect that you will strictly follow the core values of FCCU and put your entire efforts to learn as per the course requirements, attend classes, read the textbook(s)/other assigned reading material and do the assignments in the stipulated time period*

**Developed by CLT (2020) from:**

[FCC Policy for Fall Semester 2020](#)

<https://www.aascu.org/>

<https://blended.online.ucf.edu/>

**Note:**

PI see <https://unitguides.mq.edu.au/> for additional options. Macquarie University has their syllabus online (called Unit Guides and are publicly viewable)

See additional information for [Syllabus Checklist](#) and for [How to Create a Syllabus](#)

Please also consider [High Impact Practices](#) for your classes