

*DEPARTMENT OF STATISTICS*  
**FORMAN CHRISTIAN COLLEGE, LAHORE**  
(A Chartered University)  
Fall 2021

<b>Course Name: Basic Statistics</b>		
<b>Course Code:</b> STAT 100	<b>Course Type:</b> Elective	<b>Course Credits:</b> 3
<b>Class Timings:</b> 02:00am – 03:15pm TR	<b>Section:</b> J	<b>Online Office Hours (Zoom):</b> MWF- 12:00 to 01:00 p.m.
<b>Instructor Name:</b> Dr Shakila Bashir Associate Professor Department of Statistics FCCU		
<b>A Note from the Instructor:</b> <ul style="list-style-type: none"><li>• <i>Lectures will be delivered in class face to face for in-person students and at the same time online via zoom for students at home.</i></li><li>• <i>Recorded Lecture and reading Material will be uploaded on Moodle.</i></li><li>• <i>Quizzes will be accomplished through Moodle during Class time. Dates will be announced in-class as well as on Moodle.</i></li><li>• <i>Assignments will be posted on Moodle and submissions are also executed through Moodle.</i></li><li>• <i>Feedbacks will be uploaded on Moodle.</i></li><li>• <b><i>Late submission of assignments will result as 50% deduction of marks for each day.</i></b></li><li>• <b><i>There will be no retake/alternative/bonus etc. for mid and final exams.</i></b></li></ul>		
<b>Instructor Contact Details</b> Email: <a href="mailto:shakilabashir@fccollege.edu.pk">shakilabashir@fccollege.edu.pk</a> Office Hours (online): MWF- 12:00 to 01:00p.m. <b>Meeting ID: 960 2968 1672</b> <b>Passcode: 0000</b> Guidelines for contacting instructor: <ul style="list-style-type: none"><li>• Meet online</li><li>• If in-person make an appointment via email</li></ul>		

**Course Description:**

Pre-requisites if any:

Mode of Instruction: Asynchronous/ Synchronous

Mode of peer-to-peer Contact Among Students: online discussion forums

**Main Mode of Instruction:** *Moodle, Zoom*

**Technology Requirements:**

- Students need to have a computer/ laptop/ smartphone and calculator.

**Technology Etiquettes**

- In scheduled classes Students are recommended to log in at least 10 minutes before the start of the session to do the necessary checks, specifically for students.
- 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, hover over your name, and click "rename" to make the change
- Please stay muted when not speaking.
- Please turn off your video 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> <i>Presentation / Lecture Live Video-Audio Small Group Discussion/ Breakout Rooms In-class quiz Q&amp;A/ Live Chat</i>	<b>Asynchronous</b> (postal/ Moodle/ email) <i>Discussion blogs WhatsApp Readings Moodle Quizzes Assignment Submission Online Content/ Recordings Lecture notes/ Annotated PPT Experiential learning</i>	
		In-Person & Online	Off-campus and offline	
1	Understanding the definition.	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentations	
	Introduction to basic concepts and terminology	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
2	Variables, Data collection,	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	

	Data presentation,	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
3	Classification and Tabulation	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Quiz 1
	Cont..	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
4	Charts and Graphs:	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentations	Assignment 1
	Cont..	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
5	Measures of central tendency.	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
	Arithmetic mean, Properties Merit, Demerits	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
6	Median, Mode and quantiles	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Quiz 2
	Merit, Demerits	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Assignment 2
7	Geometric mean and	In-class & Zoom lectures	Moodle Quizzes, Readings,	

	Harmonic mean		PowerPoint Presentation	
	Merit, Demerits	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Assignment 2
8	Measures of dispersion.	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
	Absolute vs relative measures	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
<b>Mid-Exam</b>				
9	Range, Quartile Deviation	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
	Mean Deviation Standard Deviation/ Variance	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
10	Relative measures	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Quiz 3
	Cont..	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Assignment 3
11	Scatter Plot, Correlation	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	

	Cont.	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
12	Index Numbers, Unweighted Index Numbers	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
	Cont.	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
13	Weighted Index Numbers	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	
	Weighted aggregative method	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Quiz 4
14	Weighted average of relative method	In-class & Zoom lectures	Moodle Quizzes, Readings, PowerPoint Presentation	Assignment 4
	<b>Revision</b>	In-class & Zoom lectures		
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. *Quizzes will be online at the time of class*
2. *Students are expected to study 3 hours a week*
3. *If you have any questions, please join online office hours*
4. *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:

### Class Participation

- Attendance and participation in discussions
- At least 3 quizzes will be taken and best two will be considered for grading.
- At least 3 assignments will be taken, and all three assignments will be considered for grading.

Note: The topics and numbers of (Assignments and quiz) are tentatively suggested above it may vary according to situation.

### Assigned Readings

Practice worksheets/ Questions

The breakup is as follows:

<b>Class Participation</b>	5%
<b>Assignments:</b>	15%
<b>Quizzes:</b>	10%
<b>Midterm exam:</b>	25%
<b>Final term exam:</b>	30%
<b>Project</b>	15%
<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