| Course Code: STAT 100 | Course Type : Elective | Course Credits:3 |
|---|------------------------|---|
| Class Timings: 12:00 am – 12:50am (MWF) Room No: S-420 | Section:E | Office Hours: Monday, Wednesday, Friday 10:00 to 11:00. Office No: S-418 or online |

A Note from the Instructor:

- Policy for in-class students

- Lectures will be delivered in class
- Lecture and reading Material will be uploaded on Moodle
- Assignments will be provided on Moodle and submissions are also required on Moodle. Assignment Feedbacks will be uploaded on Moodle.

-Policy for online students

- Zoom Meeting ID will be shared on Moodle (Use the same Meeting ID to join Class)
- Lectures will be delivered online during class time
- Recorded Lectures will be uploaded on Moodle
- Reading Material will be uploaded on Moodle
- Assignments will be provided on Moodle and submissions are also required on Moodle. Assignment Feedbacks will be uploaded on Moodle.

Instructor Contact Details

Email: <u>nadiamushtaq@fccollege.edu.pk</u> Office No: S-418

Guidelines for contacting instructor:

- Online Meeting
- Google hangouts group
- If in-person make an appointment via email

Course Description:

Pre-requisites if any:

Main Mode of Instruction:

• In case of blended mode, students with even and odd roll numbers will rotate weekly as per academic calendar provided by university. There will be on-campus lectures accompanied with video lectures & notes on Moodle/ regular Zoom sessions.

- In case of in-person (on campus) classes, there will be in class lectures.
- In case of fully online teaching, regular Zoom classes will be conducted along with recorded video lectures and lecture notes uploaded on Moodle.
- Note: Assessments' criteria will be same for all modes of teaching. Assignments will be conducted on Moodle for every mode. Quizzes, mid-term exam & final exam

will be conducted on campus in case of in-person & blended classes. Otherwise for online mode, all assessments will be conducted online on Moodle. **Technology Requirements:**

• Students need to have a computer/ laptop/ smartphone, calculator and headphones/hand free

[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.

| Week | Торіс | | Assesment |
|------|---|---|--------------|
| 1 | Understanding the definition. | | |
| | Introduction to basic concepts and terminology | | |
| 2 | Variables, Data collection, | | |
| | Data presentation, | | Quiz 1 |
| 3 | Classification and Tabulation | Reading Material, Practice Material, | |
| | Cont | PowerPoint Presentations | Assignment 1 |
| 4 | Charts and Graphs: Bar charts and pie-chart | | |
| | Cont | | |
| 5 | Introduction to Measures of central tendency. Arithmetic mean, | | |
| | | | Quiz 2 |

Course Content, Learning Material & Activities Schedule

| 6 | Median, quantiles and mode | | |
|----|--|----------|--------------|
| | | | |
| 7 | Geometric mean and Harmonic mean | | Assignment 2 |
| | Cont | Mid term | |
| 8 | Introduction to measures of dispersion. | | |
| | Absolute and relative measures of dispersion. (range ; quartile deviation and their coefficients) | | |
| 9 | Mean Deviation (with mean and median) and its coefficient | | |
| | Standard Deviation/ Variance; Coefficient of Variation | | Quiz 3 |
| 10 | Bivariate Data and Correlation | | Assignment 3 |
| | Cont, | | |
| 11 | Scatter Plot and Free-hand Trend | | |
| | Cont. | | |
| 12 | Index Numbers, Unweighted Index Numbers | | Case Study |
| | Cont. | | Quiz 4 |
| 13 | Weighted Index Numbers | | |
| | Weighted aggregative method | | |
| 14 | Weighted average of relative method | | |
| | Revision | | |
| 15 | Project | | |
| 16 | Final Exa | n | |

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

Students are expected to study 3 hours a week
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:

| he breakup is as follows:(may be increase or decrease) | | |
|--|------|--|
| Class Participation | 5% | |
| Assignments: | 10% | |
| Quizes | 10% | |
| Midterm exam: | 25% | |
| Case Study | 10% | |
| Final term exam: | 40% | |
| TOTAL | 100% | |

[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 |
| В | 3.00 | 83-86 | |
| B- | 2.70 | 80-82 | |
| C+ | 2.30 | 77-79 | |
| С | 2.00 | 73-76 | Satisfactory |
| C- | 1.70 | 70-72 | |
| D+ | 1.30 | 67-69 | Passing |

| D | 1.00 | 60-66 | |
|---|------|-------------|---------|
| F | 0.00 | 59 or below | Failing |

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