



SULTAN KUDARAT STATE UNIVERSITY
Isulan, Sultan Kudarat
College of Computer Studies
1st Semester A.Y. 2024 – 2025



UNIVERSITY VISION

A trailblazer in arts, science and technology in the region.

UNIVERSITY MISSION

The University shall primarily provide advance instruction and professional training in science and technology, agriculture, fisheries, education and other related field of study. It shall undertake research and extension services, and provide progressive leadership in its area of specialization.

UNIVERSITY GOAL

To produce graduates with excellence and dignity in arts, science and technology.

UNIVERSITY OBJECTIVES

Enhance competency development, commitment, professionalism, unity and true spirit of service for public accountability, transparency and delivery of quality services;
Provide relevant programs and professional trainings that will respond to the development needs of the region;
Strengthen local and international collaborations and partnerships for borderless programs;
Develop a research culture among faculty and students;
Develop and promote environmentally-sound and market-driven knowledge and technologies at par with international standards;
Promote research-based information and technologies for sustainable development;
Enhance resource generation and mobilization to sustain financial viability of the university.

1. Course Code : STAT 003
2. Course Title : Statistics with Program Applications
3. Prerequisite : NONE
4. Credits : 3 UNITS

5. Course Description:

This course includes Descriptive Statistics, conduct of survey and basic Inferential statistics. Students will also be exposed to the use of Statistics application which includes but not limited to Excel Stat, and google forms.

6. Course Learning Outcomes and Relationships to Program Objectives

| Course Learning Outcomes | | Program Objectives | | | |
|---|---|--------------------|---|---|---|
| At the end of the semester, the students can: | | a | b | c | d |
| a. | Distinguish, differentiate statistics concepts | | | | / |
| b. | Link statistics concepts to provide solution to social predicaments | | | | / |
| c. | Create online surveys and use excel to calculate results | / | / | / | / |
| d. | Use excel to compute statistics tools | / | / | | / |
| e. | Analyze and interpret statistical results | / | / | | / |

7. Course Content

| Course Objectives, Topics, Time Allotment | Desired Student Learning Outcomes | OBA Activities ¹ | Evidence of Outcomes | Course Learning Outcomes | Program Objectives | Values Integration |
|---|---|---|--|--------------------------------|-----------------------|--|
| SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System (Week 1) | | | | | | |
| Discuss the VMGO of the university, classroom policies, scope of the course, course requirements and grading system | <p>a. Student can be aware of and appreciate of the university's VMGO, classroom policies, course overview, requirements and grading system.</p> <p>b. Get acquainted with blended learning</p> | <p>Read an excerpt of the book Kite Runner and answer the questions –</p> <ol style="list-style-type: none"> 1. If you are Amir's father, how will you reprimand Amir? 2. If you are Hassan, will you believe Amir? Why or why not? | <p>Students are expected to submit the activities via –</p> <p>a. Google classroom – Requirements are checked thru the system.</p> | | | <p>Value of appreciation</p> <p>Instilling the love for learning</p> |

| | | | | | | |
|---|--|--|-----------------------------|-----|---------|-------------------------------------|
| Discuss the following – Definition of Statistics Significance of Statistics in governance, medical science, entertainment | At the end of this lesson students will be able to a. Distinguish Statistics from other applied mathematics b. Articulate the use and importance of Statistics | Module Activities* – Quiz Research on significance of Statistics in areas other than the one discussed | Written answer Essay | a,b | d | Curiosity |
| Module 2: Data and Data Types (Week 2.5) | | | | | | |
| Discuss the following – a) Concept of Data b) Data Types c) Level of measurement | a. Articulate the concept of data and its importance in Statistics b. Differentiate the data types and level of measurement | Module Activities – | Written answers | a,b | d | Value of Perseverance and discovery |
| Module 3: Data Collection (Week 2.5 – 3) | | | | | | |
| Discuss the following – a) Collection of data b) concepts of population and sample c) sample size d) sampling e) data mining f) conduct of survey | a. Distinguish population from sample, census from survey b. Compute sample size c. Characterize the different sampling techniques | Read reports on SWS, identify population, sample, sampling techniques | Written answer | a,b | d | Accuracy Focus |
| Module 4: Creating Questionnaire (Week 4-5) | | | | | | |
| Discuss the following – a) Questionnaire b) Questions type c) Google Forms | a. Craft survey questionnaire b. Send out surveys using online applications | Create online survey | Online survey | c | a,b,c,d | Honesty Creativity |
| Module 5: Descriptive Statistics (Week 6 – 7) | | | | | | |
| Discuss the following – a) Measures of Central Tendency b) Variability c) Computation of the aforementioned using excel | a. The students can solve problems related to Measures of Central Tendency, Variability b. Can solve the aforementioned using | Problem solving | Problem results | d | a,b,d | Intuition Efficiency |

| | | | | | | |
|--|-------|--|--|--|--|--|
| Data Visualization a) sparklines b) conditional formatting c) graphs (trends, bar, column, pie) d) extra (excel functions) | excel | | | | | |
|--|-------|--|--|--|--|--|

MIDTERM WEEK 8

Module 6: Data Presentation (Week 9 – 10)

| | | | | | | |
|---|--|---------------|-------|---|-------|--|
| Discuss the following – Data Presentation | a. The students can present their data thru a poster | Poster making | Draft | e | a,b,d | Resource-fullness Result oriented |
|---|--|---------------|-------|---|-------|--|

Module 7: Inferential Statistics (Week 11 – 13)

| | | | | | | |
|---|--|-----------------|-----------------|-----|-------|----------------|
| Discuss the following – Fundamentals of solving and interpreting Inferential Statistics | b. Students can perform the fundamental process of inferential statistics analysis | Problem solving | Problem results | d,e | a,b,d | Openness Focus |
|---|--|-----------------|-----------------|-----|-------|----------------|

Module 8: Statistical Tools (Week 14 – 15)

| | | | | | | |
|---|---|-----------------|-----------------|-----|-------|---------------------------------------|
| Discuss the following – T test ANOVA Stat tools Excel calculation | a. The students can solve problems related to T test and ANOVA b. Can solve the aforementioned using excel | Problem solving | Problem results | d,e | a,b,d | Critical Mindedness Efficiency |
|---|---|-----------------|-----------------|-----|-------|---------------------------------------|

Project Assessment (Week 16)

FINALS WEEK 18

8. Course Evaluation

Course Requirements:

Activities
Midterm / Final Exams
Project

Grading System:

Midterm / Final Exams – 40%
Activities / Exercises – 40%
Project – 20%

9. References:

Textbooks

- Fox, J. (2008). *A Mathematical Primer for Social Statistics Quantitative Applications in the Social Sciences*. SAGE Publications. Retrieved from internal-pdf://101.150.140.26/Dr. John Fox A Mathematical Primer for Social .pdf LB - empty
- Huck, S. W. (2013). *Statistical Misconceptions*. Routledge. <https://doi.org/10.1017/CBO9781107415324.004>
- Ye, K., & Myers, S. L. (2000). *Probability & Statistics for Engineers & Scientists - Instructor's solution manual*.
- SPIEGEL, M., SCHILLER, J., & SRINIVASAN, R. A. (2001). *Shaum's Outline: Probability and Statistics*. McGraw Hill.
- Taroni, F., Biedermann, A., & Bozza, S. (2016). Statistical hypothesis testing and common misinterpretations: Should we abandon p-value in forensic science applications? *Forensic Science International*, 259, e32–e36. <https://doi.org/10.1016/j.forsciint.2015.11.013>

Online Guide

<https://www.howtogeek.com/434570/the-beginners-guide-to-google-forms/> - beginners guide to google forms

<https://www.excel-easy.com/functions/statistical-functions.html>

10. Rubrics for Activities

| Indicators / Ratings* | 5 | 4 | 3 | 2 | 1 |
|--------------------------|---|--|--|---|---|
| Correct execution | All problems are solved correctly | 85 – 90% of the items are not solved | 75 – 84% items are not solved | 50 – 74% Half of the problems are solved | At least one of the items are solved |
| Innovativeness | Problems are solved more than what was required | Problems are solved exactly as required | Problems are solved at an average effort | Problems are solved less than what was required | Problems are solved at a minimum effort |
| Overall Impact | Execution / output is beyond expectation | Execution / output is within expectation | Execution / output is at an average effort | Execution / output is less than what was required | Execution / output is at a minimum effort |
| Total | 15 points | | | | |

*Zero points is given to wrong answers, no effort exerted.

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