OUR LADY OF FATIMA UNIVERSITY
CCS-079-18-00

OLFU VISION

A premier inclusive university of choice aspiring to improve mam as man by developing individuals through a legacy of excellent education and compassionate value formation.

OLFU MISSION

The Our Lady of Fatima University together with Fatima Medical Science Foundation, Inc. is dedicated to the improvement of man as man through the holistic formation of individuals imbued with knowledge, skills, and virtues.

OLFU CORE VALUES

A – Aspires to Do His Best
C – Credible and Compassionate
H – Hardworking and Honorable
I – Inspiration to Others
E – Efficient, Effective and Ethical
V – Visionary
E – Entrepreneurial, Employable and Excellent Work Habits
R – Responsible

COLLEGE MISSION

The College of Computer Studies aims to provide innovative and quality instruction to the advancement of technology, intends to develop an entrepreneurial learning environment towards sustainability and growth; and develops responsible and morally upright citizens.

COLLEGE VISION

We are committed to provide accessible, responsive, and quality Information Technology Education (ITE) programs and to become the Institution of choice in producing competent and responsible IT professionals who are sensitive to the needs and demands of the industry.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

A graduate of BS Information Technology is expected to:

1. Participates in various Information Technology organizations and serve as a contributor to the individual's development.
2. Exercises personal, interpersonal, and technical competence in the IT profession.
3. Undertakes continuing studies and/or take and pass certification exams applicable to the field of specialization.
4. Adheres to the ethical and moral standards of ACM and IEEE professional code of conduct.
5. Uses information communication technology that serves as a tool to develop innovative business solutions.

PROGRAM OUTCOMES (PO)

1. Engages professional organizational activities and be involved in the learning process towards the development of individual skills in the field of Information Technology.
2. Establishes a professional career comparable to well-known IT professionals through self-determination, focus and perseverance.
3. Engages in lifelong Information Technology education through active and empowered learning
4. Fulfills the IT professional roles with a deep sense of moral and social responsibility.
5. Possesses leadership in the business community in pursuing Information Technology advancement.

COURSE SYLLABUS

COLLEGE	COMPUTER STUDIES
DEPARTMENT	CCS
COURSE CODE	SFCR 111
DESCRIPTIVE TITLE	STATISTICS for COMPUTING RESEARCH
PREREQUISITE (S)	QMET 211
CREDIT UNIT (S)	3 units
CONTACT HOURS PER SESSION:	Lecture: 3 hrs.

COURSE DESCRIPTION

This course provides students with the statistical tools and approaches to undertake computing research and capture the behavior of observed phenomena or variables using statistical modeling techniques. To introduce students to quantitative and qualitative methods for conducting meaningful inquiry and research. They will gain an overview of research intent and design, methodology and technique, format and presentation, and data management and analysis informed by commonly used statistical methods.

COURSE EXPECTED OUTCOMES (CO)

After successful completion of this course, students are expected to achieve the following course outcomes:

1. Relate the University Vision Mission and College Program Educational Objective with the Course Outcome,
2. Developing a hypothesis, a research problem and related questions in framing the problem with the correct research methodology.
3. Collecting, measuring data that accurately addresses the research problem in making decisions.
4. Providing technical guidance to contractors for inclusion in contract documents related to research projects
5. Evaluating the feasibility of research proposals to support programs for decision-makers and other stakeholders.

COURSE COVERAGE – PRELIMS

WEEK	UNIT EXPECTED OUTCOMES (UEO)	COURSE CONTENT
1	○ COURSE ORIENTATION: ○ Explain the mission and vision of OLFU ○ Relate how the study of Information Technology shares achieving the vision and mission of the university ○ Outline the content of the course syllabus and requirements.	**COURSE ORIENTATION** 1.1 OLFU VMV 1.2 PEO, PO, CO 1.3 Course Outline
2	○ Enumerate the importance and significance of statistics in research ○ Identify the scope of statistics in research ○ Fulfill the objectives of statistics in studying research	**1. Importance of Statistics** a. What is Statistics? b. Qualities of a Good Statistician c. Scope of Statistics d. Functions of Statistics e. Importance of Statistics to Research f. Z-test with Computer g. Objectives of Research in Studying Research
3	○ Identify the different methods of collecting data ○ Enumerate and describe the different methods of presenting data	**2. Collection and Presentation of Data** a. What is Validity? b. Testing the validity of the Research Instrument c. Reliability d. Methods of Testing the Reliability of Research instrument e. Data Gathering Procedure f. Data Processing Procedure g. Statistical Treatment h. Presentation of Data
4	○ Describe the features of a frequency distribution ○ Construct a frequency distribution table ○ Illustrate a given data using the common graphical presentation methods	**3. Frequency Distribution and Their Graphical Representation** a. Frequency Distribution b. Graphic Representation of Frequency Distribution
5	○ Differentiate mean, median, and mode ○ Interpret a data through its mean, median and mode ○ Interpret the shape of a data through its mean, median, and mode ○ Discuss range and average deviation as well as their limitations	**4. Measures of Central Tendency** a. Characteristics of Mean b. Characteristics of Median c. Characteristics of Mode d. Advantages of the Mean, Median and Mode e. Disadvantages of the Mean, Median and Mode f. Arithmetic Mean g. Median h. Mode i. Mean, Median Mode using Computer
6	**PRELIM EXAMINATION**	

COURSE COVERAGE – MIDTERMS

WEEK	UNIT EXPECTED OUTCOMES (UEO)	COURSE CONTENT
7	○ Discuss the use and relevance of Point Measures	**5. Point Measures** a. Quartile b. Decile c. Percentile
8	○ Discuss the use and relevance of Measures of Variability ○ Identify their uses in applying to research	**6. Measures of Variability** a. Range b. Quartile Deviation c. Average Deviation or Mean Deviation d. Variance e. Standard Deviation f. Advantages of Variance and Standard Deviation as Measures of Variability g. Interpretation of Standard Deviation h. Measures of Relative Variability
9	○ Define correlation, correlation coefficient, positive correlation, and negative correlation ○ Demonstrate hypothesis testing using Pearson r Correlation Coefficient	**7. Measures of Correlation** a. Perfect Negative Correlation b. Perfect Positive Correlation c. Pearson Product-Moment Correlation Coefficient d. Correlation with Computer e. Interpretation of Correlation Value f. Spearman Rank Correlation Coefficient or Spearman rho g. Spearmen Correlation with Computer h. Scattergram or Scatter Diagram
10	○ Illustrate how to obtain the regression line given a data	**8. Partial and Multiple Correlation and Regression** a. Partial Correlation of Three Variables b. Correlation with Computer c. Partial Correlation of Four Variables d. Multiple Correlation and Regression

COURSE COVERAGE – MIDTERMS

11	○ Compute for the probability of compound events and outcome of a probability experiment ○ Solve for the conditional probabilities of events ○ Calculate the joint probabilities of events using multiplicative rule ○ Compute for the permutation and combination events and outcome of a probability experiment	**9. Probability, Permutation and Combination** a. Experimental Probability b. Expected Probability c. Addition of Probabilities d. Multiplication of Probabilities e. Permutation f. Combination
12	**MIDTERM EXAMINATION**	

COURSE COVERAGE – FINALS

WEEK	UNIT EXPECTED OUTCOMES (UEO)	COURSE CONTENT
13	○ Identify the three types of chi-square tests ○ Demonstrate hypothesis testing using Chi-Square	**10. Chi-Square** a. What is Chi Square? b. Uses of Chi-Square c. Classification
14	○ Demonstrate hypothesis testing using one way ANOVA	**11. ANOVA** a. Z-Test, b. T-Test, c. Levels of Significance d. F-test or ANOVA
15	○ Demonstrate hypothesis testing using ANCOVA	**12. Analysis of Covariance** a. ANCOVA Table
16 – 17	○ Demonstrate other ANCOVA	**13. Other Analysis of Variances** a. Friedman Two-Way Analysis of Variance by Ranks b. Kruskal-Wallis One-Way Analysis of Variance by Ranks with Tied Observations
18	**FINAL EXAMINATION**	

TEXTBOOKS

Aguilar, Arfel V., Roque,

REFERENCES (BOOKS/ONLINE WEBSITES/JOURNALS)

BOOKS

Palmer, Michael.

WEBSITES

E-JOURNALS

Jiang, Jianjun; Wang, Yiqun; Zhang, Li; Xie, Tian; Li, Min; Peng, Yuyuan; Wu, Daqing; Li, Peiyao; Ma, Congmin; Shen, Mengxu; wu, Xing; Weng, Mengyun; Wang, Shiwei; Xie, Cen. (2016) Optimal design method for a digital human–computer interface based on human reliability in a nuclear power plant. Part 3: Optimization method for interface task layout.Annals of Nuclear Energy. Aug2016, Vol. 94, p750-758. 9p. DOI: 10.1016/j.anucene.2016.04.036. Retrieved from http://web.b.ebscohost.com/ehost/viewarticle/render?data=dGJyMPPp44rp2%2fdV0%2bnjisfk5Ie45PFJtq62Sq6k63nn5Kx95uXxjL6urUmzpbBIr62eSbCwr0y4prY4v8OkjPDX7Ivf2fKB7eTnfLuntUixqbFJtqmuPurX7H%2b72%2bw%2b4ti7eeTeplzf3btZzJzfhrunr02xqbZRsaikfu3o63nys%2bSN6uLyffbq&vid=27&sid=96bd9242-3bab-4948-afae-fcd29b0df7f4@sessionmgr101

GRADING SYSTEM

The final grade of the student is interpreted as shown on the table below:

COMPUTED GRADE	100-98	97-95	94-92	91-89	88-86	85-83	82-80	79-76	75	75 Below
EQUIVALENCE	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.0

FDA - Failure due to Absences
AW - Authorized withdrawal
UW - Unauthorized Withdrawal
NFE - No Final Examination
INC - Incomplete

PRELIM GRADE		MIDTERM GRADE		FINAL GRADE	
Prelim Exam	36%	Prelim Exam	27%	Prelim Exam	20%
Performance Task	64%	Midterm Exam	27%	Midterm Exam	20%
		Performance Task	46%	Final Exam	20%
				Performance Task	35%
				Term paper/Capstone	5%

OTHER IMPORTANT INFORMATION	
OTHER COURSE POLICIES	
STUDENTS COURSE PORTFOLIO	All exercises and requirements for the course are to be compiled by the students as part of their portfolio and must be made available for inspection by the instructor before the end of the semester
LANGUAGE OF INSTRUCTION	ENGLISH
ATTENDANCE	Per Section 1551 of CHED's Manual of Regulation for Private Educational Institution, a student who has incurred absences more than twenty percent (20%) of the total number of school days shall not be given credit to the course regardless of class standing. For further provisions of the said policy, please refer to the OLFU Student Handbook.
COURSE REVIEW AND ENHANCEMENT MEMBERS	Chairperson : ENGR. ELISEO D. FRANCISCO, JR., MIT Members : MR. JEFFREY CALIM, SMIT MR. WILFREDO M. ROMERO, MIT