KING SAUD UNIVERSITY

Statistics (CHS 550)

Credit Hours: 2

Prerequisites: None

Classroom: G 22 (computer lab ground floor)

Days and hours of class meetings: Monday (4 pm -5:50 pm)
Instructor contact information: Dr. Omaimah Qadhi
Office phone: +966118056961
Contact email: oqadhi@ksu.edu.sa

Office Hours: By appointment.

Course Description: This course focuses on basic theory design of experiments. Emphasizes selection, application, and interpretation of statistical techniques appropriate for nursing research. Topics include probability, point and interval estimation, hypothesis testing, elementary regression and one-and two-way analyses of variance.

Instructional Methods:

Lecture, Discussion, Question and Answer and Problem-Solving modules.

Required Texts:

Plichta. S.B., & Kelvin, E. (2013). Munro's statistical methods for health care research (6th Ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

NOTE: A calculator is required for this course. A TI-83 or a graphing calculator comparable in capability to a TI-83 is recommended. Using a cell phone as a calculator is STRICTLY PROHIBITED! at any time.

Recommended Resources:

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.

Course Goals: The goal of this course is to provide learning opportunities whereby students are able to conduct the types of descriptive and inferential statistics analyses that are commonly encountered in nursing research. In addition to developing an understanding of common

terminology and computational procedures, students will learn how and when to apply given statistical techniques based on the type of data involved.

Goals for Student Learning:

Upon completion of this course, the student will be able to:

1. Explain basic concepts related to statistics.
2. Understand why statistical analyses are conducted
3. Identify most of the common statistical methods in nursing research articles
4. Summarize numeric data by creating tables and graphs.
5. Apply the basic concepts of probability and sampling distributions.
6. Recognize when to use the most appropriate analysis option for a given data set.
7. Illustrate descriptive and inferential statistical analysis for the most common types of methods used in nursing research.
8. Perform mathematical computations for some analyses
9. Use SPSS (formerly an acronym for the "Statistical Package for the Social Sciences").

Course Requirements:

Assignments:

1. **Class participation (5%):**

    Active participation in weekly classes is expected of all students in this course. Active participation includes preparing for class discussions by reading the assigned textbook chapters; contributing to the flow of ideas in class; and engaging in constructive feedback with colleagues in such a way as to further the development of ideas and knowledge

2. **Quiz (10%):**

    Students will write two quizzes (each worth 5% of the final grade). The quiz component will be an individual effort and will be conducted during class. The quiz provides the student with an opportunity to review course materials covered up to and including the week of the quiz. Students can use their textbook and course notes while writing the quiz, BUT the quiz must be completed individually – i.e. without assistance from classmates or other individuals. More details about the quiz will be provided as the date approaches.

3. **Midterm exam (25%):**

    Examinations will be given at scheduled class times during the semester. Exam content will be based upon material addressed in the assigned text and in-class content. There are no make-up exams; any exception should be discussed with me at least 48 hours in advance of the exam.

4. **Assignments (20%)**

    There will be 2 analysis assignments (10 for each) to be completed during the semester. The assignments will be completed independently and submitted by the required due

date. There will not be any make-up assignments. If you do not submit the assignment by the required due date, a grade of zero will be recorded.

Attendance: Students are expected to attend every class. Students are responsible for all announcements and any content covered in each class.

Classroom behavior: This class will be conducted in an atmosphere of mutual respect. It is expected that cell phones will be muted during class. No student will be permitted to respond to text messages during class. Students who show disrespect to the professor or their classmates will be told to leave the room for the remainder of that class period.

Class Schedule:

Date	Topic	Readings Plichta and Kelvin (2013)
1	Overview	
2	Data presentation and Data Handling	Text: Ch 1
3	Descriptive statistics Measures of Central Tendency and Variability	Text: Ch 2
4	Probability and the Normal Distribution	**Quiz** Text: Ch 3
5	Hypothesis testing	Text: Ch 4
6	Statistical Tests - Chi Square	Text: Ch 12 **Quiz**
7	Independent T-test	Text: Ch 5
8	**Midterm exam**	
9	Dependent (Paired) T-test	Text: Ch 6
10	Statistical Tests – experimental studies ANOVA	Text: Ch 7 **Assignment- 1**
11	Statistical Tests – Correlation Non-parametric rank tests	Text: Ch 11
12	Statistical Tests – Linear Regression Model building	Text: Ch 14 (see also Ch 13 for section about model building)
13	Statistical Tests – Logistic Regression	Text: Ch 13 **Assignment-2**
14	**Revision**	

Final Exam	

General rules

- Students are expected to follow their program dress codes and comply with the professional appearance.
- Students are required to be present and punctual every day. As per KSU rules and regulations, you are required to attend at least 75 % of the classrooms in order to enter the final exam. Attendance will be calculated from the first week of the semester regardless of the day of enrollment in the course.
- As per KSU rules and regulations, sick leaves (out of KSU facilities) will not be accepted unless being authenticated by KSU.
- Students are responsible for any missed class, in term of class content, homework, assignments, and exams.
- Missed deadlines for homework and projects will affect your grade with no credit.
- Missed quizzes will not be taken.
- Missed midterms or final exams, however, may be taken in accordance with KSU policy.
- Cheating or plagiarism on tests or assignments is cause for formal disciplinary action.
- Courses that have practical part, students will not enter the final practical unless they pass 85 % of the required clinical competencies for this course.
- Cell phones should be on silent mode in class.
- **The best communication method with the faculty, is through the faculty university`s email address provided in this syllabus.**

Student Acknowledgement of Course Syllabus

We have received a copy of the syllabus for CHS 550, Section# 45287. We have read this syllabus and understand that we are responsible for abiding by the course requirements and policies mentioned in the syllabus.

Students Name	Students ID	Signature	Date