Education Evaluation Commission
المركز الوطني للتقويم والاعتماد الأكاديمي
National Center for Academic Accreditation and Evaluation

ATTACHMENT 5.

T6. COURSE SPECIFICATIONS (CS)

Stat.105
STATISTICAL METHODS

Institution: King Saud University   Date:

College/Department : College of Sciences/ Department of Statistics and Operations Research

A. Course Identification and General Information

1. Course title and code: Stat.105
2. Credit hours: 4 (3+2+0)
3. Program(s) in which the course is offered. **Statistics and Operations Research**
4. Name of faculty member responsible for the course: Dr. Khaled Bennour
5. Level/year at which this course is offered: Level 3/ Year 2 **(Statistics)and Or Students and Actuary Student**
6. Pre-requisites for this course (if any): **STAT 101**
7. Co-requisites for this course (if any): None
8. Location if not on main campus:
9. Mode of Instruction (mark all that apply):

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a. traditional classroom ☐ * What percentage? ☐ 100

b. blended (traditional and online) ☐ What percentage? ☐

c. e-learning ☐ What percentage? ☐

d. correspondence ☐ What percentage? ☐

f. other ☐ What percentage? ☐

Comments:

Teaching 3 hours

B Objectives

1. What is the main purpose for this course?
.Statistical distributions
. Estimation
. Hypothesis testing
. Analysis of variance

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

- Posting course materials on the course Webpage.
- Number of lectures including computer labs will be established.
- Updating books and the course web site periodically

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:
Statistical models for the analysis of quantitative and qualitative data, of the types usually encountered in social science, public health, biological and life sciences research.

1. Topics to be Covered

List of Topics:	No. of Weeks	Contact Hours
(1) Some discrete and continuous Statistical distributions	3	15
(2) Sampling distribution and central limit theorem	2	10
(3) Estimation	2	10
(4) Hypothesis testing	3	15
(5) Chi-square tests	2	10
(6) Analysis of variance	2	10
(7) Analysis of correlation and regression	1	5

2. Course components (total contact hours and credits per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	Planed	45	30				75
	Actual	45	30				75
Credit	Planed	45	15				60
	Actual	45	15				60

3. Additional private study/learning hours expected for students per week.	4

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
	Understand the reasoning used when conducting a test	Tutorial discussions	Major and final exams
1.2			
2.0	• **Cognitive Skills** Demonstrate capability of choosing the appropriate statistical method for a particular application. • Formulate significant research questions, analyze data and interpret the results. • Read, evaluate, and interpret numerical, statistical and general scientific information. • Search and use the statistical literature in both printed and electronic formats. • Work on different statistical techniques and decisions making. Apply critical thinking and hypothesis-driven methods of scientific inquiry.		
2.1			
2.2			
3.0	**Interpersonal Skills & Responsibility** *Homework assignments on problem solving *Statistical reports		
3.1			
3.2			
4.0	**Communication, Information Technology, Numerical**		
4.1			
4.2			
5.0	**Psychomotor**		
5.1			
5.2			

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment

1	Home work	3	
2	Home work	6	
3	Home work	9	
4	Home work	12	
5			
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Office hours 3 h/ week
- Help through emails/discussions/consultations

E Learning Resources

1. List Required Textbooks
Text Book: Applied Linear Statistical Models (5th ed.). Michael H. KUTNER, Christopher J. NACHTSHEIM, John NETER, and. William LI. New York: McGraw-Hill, 2005.

2. List Essential References Materials (Journals, Reports, etc.)
- Websites on the internet that are relevant to the topics of the course

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
www.stat.purdue.edu/~zhangdb/stat514/

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
2. Technology resources (AV, data show, Smart Board, software, etc.) R statistical software
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching: Ask students, from time to time, about their learning and achievement
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department Percentage of students who complete their home works
3. Processes for Improvement of Teaching Discussion between scholars
4. Processes for Verifying Standards of Student Achievement: Discussion between teachers on how to improve achievement.
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement: Planning a series of meetings between teachers.

Name of Course Instructor: Dr. Khaled Bennour

Signature: _____   Date Specification Completed: __January 27 2018

Program Coordinator: _____

Signature: _____   Date Received: _____