المركز الوطني للتقويم والاعتماد الاكاديمي
National Center for Academic Accreditation and Evaluation

ATTACHMENT 5.

T6. COURSE SPECIFICATIONS (CS)

هيئة تقويم التعليم
Education Evaluation Commission

Course Specifications

Institution: University of Tabuk	Date: 10/01/1440
College/Department : College of Sciense/ Department of Mathematics	

A. Course Identification and General Information

1. Course title and code: Biostatistics (STAT262)
2. Credit hours: 4
3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
BSc in Biology
4. Name of faculty member responsible for the course
Dr. Intisar Khalil
5. Level/year at which this course is offered: 3 2nd year
6. Pre-requisites for this course (if any): MATH101
7. Co-requisites for this course (if any): None
8. Location if not on main campus:
Umluj College
9. Mode of Instruction (mark all that apply):

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:
None

B Objectives

1. What is the main purpose for this course?

Students are expected to have knowledge of statistics and elementary probability and probability distributions. They should be able to summarize data by a suitable statistic, graphical presentation of data including Box plot. They should be able to conduct hypothesis tests about one and two means and proportions and draw conclusion.

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)

- use internet search engine to provide students with exams and tutorials and updated learning resources from international universities.
- using smart board to improve student abilities of IT

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

Course Description: In this statistics course we will clearly the definition statistics and biostatistics, and explore of the use statistical methodology in designing, analyzing, interpreting, and presenting biological experiments and observations. We will cover descriptive statistics, elements of experimental design, probability, Statistical inference: Point and interval estimation, Type of errors, Concept of P-value, testing hypothesis about one and two samples means and proportions including paired data – different cases under normality..

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Introduction to statistics	1	4
Descriptive statistics	3	12
Some basic probability Concepts	2	8
Probability Distributions	3	12
SOME IMPORTANT SAMPLING DISTRIBUTIONS	1	4
Distribution of the Sample Mean	1	4
Estimation	1	4
Hypothesis Testing, Correlation and Regression	1	4

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

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	Planed	52					52
	Actual	52					52
Credit	Planed	52					52
	Actual	52					52

3. Additional private study/learning hours expected for students per week.	1

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

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

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**		
1.1	A brief summary of the knowledge or skill the course is intended to develop;	Beginning each chapter by giving general idea and benefits of it. Demonstrate course information and objectives with lectures.	Quizzes I II Midterm Exams Final Exams
1.2	The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.	Providing key ways to solve the exercises	Homework
1.3	Framing the data analysis problems and interpretations	Solving some problems during the lecture with some tips	Discussions with the students during the lectures
2.0	**Cognitive Skills**		
2.1	- graphical and tubule presenting of data - the importance of statistics	Encouraging the students to solve complicated problems with different methods.	Quizzes I II Midterm Exams
2.2	Enable students to apply statistical tools .	Ask the students to attend the lectures for practice solving problems.	Check the solutions of the homework problems.
2.3	Structured course materials delivered through a sequential delivery of lectures, with an introductory lecture focusing on the significance of the course • Interactive learning process through questions and answers in class. • Tutorials to help students to understand the course materials and solve problems.	Home Assignments	Discussing with the students how to simplify and analyze the given problem
3.0	**Interpersonal Skills & Responsibility**		
3.1	The students should take responsibility to	Making the students to use	-Quizzes of some past

	illustrate the problems	the library and internet. Encouraging them to attend the lectures without absent by allotting marks for attendance	lectures. -Ask the absent students about the last lecture.
3.2	Make them to work independently and also with works	- Teach them the importance of missed lectures and ask them to take them. - Give the students the necessary tasks and duties	-Discussions in the class during the lecture. Unified Reports and -Seminars: To assess the integration work done by students in a unified report and presentations.
4.0	**Communication, Information Technology, Numerical**		
4.1	students should illustrate how to communicate with Peers, Lectures and Community.	creating working groups with peers to collectively prepare: solving problems and search the internet for some topics.	Discussing the group work with data sheets
4.2	students must interpret how to know the basic statistical tools using the internet and using of statistical packages	Give the students tasks to measure their: mathematical skills, computational analysis and problem solving	Discussions with them regarding the results of computations analysis and solutions of the problems
4.3	student must appraise for using the library and internet	Encouraging the student to take help of lecturer if needed	Give homework's to know how the student understands the numerical skills
5.0	**Psychomotor**		
5.1	Not applicable	Not applicable	Not applicable
5.2	Not applicable	Not applicable	Not applicable

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 works and Assignments	Weekly basis	10%
2	First mid-term exam	5th week	25%
3	Second mid-term exam	11th week	25%
4	Final Exam	16th week	40%

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)
- 8 office hours per week in the lecturer schedule: Sunday (12-02), Tuesday (12-02), Thursday (11-12), MONDAY (10-12), WEDNESDAY (11-12)

E Learning Resources

1. List Required Textbooks

Biostatistics: A Foundation for Analysis in the Health Sciences, Wayne W. Daniel
2. List Essential References Materials (Journals, Reports, etc.) Sheldon M. Ross: Introductory Statistics 3th ed. (2010)
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc. https://www.sas.com/en_us/software/or.html
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software. EXCEL

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.) - Lecture Room with capacity of 30 students and equipped with White Board, Multimedia projector. - Library
2. Technology resources (AV, data show, Smart Board, software, etc.) Data show
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) : None

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching - Student evaluation electronically organized by the University on the students site
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department - The colleagues who teach the same course must discuss together to evaluate their teaching plan for uniformity in the course
3. Processes for Improvement of Teaching - Course report, Program report and Program self-study. - A tutorial lecture must be added to this course.
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) - check marking by an independent member teaching staff of a sample of student work
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. a. taking student information in the 1st lecture b. home work must be sent to student by e-mails c. solving exercises must be done by excel

Name of Course Instructor: Dr. Intisar Khalil
Signature: _____ Date Specification Completed: 10/01/1440
Program Coordinator:
Signature: _____ Date Received:_____