هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد NCAAA T3 2020

Program Specification

Program Name: Bachelor of Science in Statistics
Qualification Level: Level 6 (Bachelor's degree)
Department: Statistics
College: Faculty of Science
Institution: University of Tabuk

Content

A. Program Identification and General Information

1. Program Main Location:

Main Campus, Faculty of Science, University of Tabuk

2. Branches Offering the Program:

NA

3. Reasons for Establishing the Program:
(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

- Meet the needs of the Kingdom of Saudi Arabia for qualified national cadres in the field of statistics.
- Meet the needs of the Kingdom of Saudi Arabia for scientific research in the field of statistics and their relevant applications.
- Provide governmental and private sectors with scientific consultants in the field of statistics and their relevant applications.

4. Total Credit Hours for Completing the Program: (130 hrs.)

5. Professional Occupations/Jobs:
(Based on Ministry of Human Resources and Social Development; Masaer platform)

- Academic researcher (235906)
- Senior Statistician (121117)
- Statistician (212003)
- Data analyst (212004)

6. Major Tracks/Pathways (if any)**:**

Major track/pathway	**Credit hours** (For each track)	**Professional Occupations/Jobs** (For each track)
NA	NA	NA

7. Intermediate Exit Points/Awarded Degree (if any)**:**
NA

Intermediate exit points/awarded degree	**Credit hours**
NA	NA

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

To provide a distinguished education in statistics and its applications that equips students with the knowledge and scientific research skills necessary to serve the community.

2. Program Goals:

1. To provide the job market with qualified graduates equipped with knowledge, skills, competencies, and continue self-learning.
2. To conduct scientific research by applying statistical models to solve real-life problems.
3. To prepare qualified statisticians who work professionally, communicate effectively, and engage in community issues.

3. Relationship between Program Mission and Goals and the Mission and Goals of Institution/College/Department.

Table 3.1 Relationship between Program Mission and the Mission of Institution/College/Department

	University of Tabuk mission To offer a distinguished university education that prepares university graduates with the knowledge, capabilities, and skills needed by the community and developmental projects in the Tabuk region within an exceptional education and administrative environment that promotes innovative research.			
Faculty of Sciences mission	***Keywords***	Education	Research	Community Services
Providing distinguished academic education to graduate distinguished human	Distinguished Academic Education	√		

cadres in theoretical and applied sciences to meet the needs of the labor market and society according to an educational environment that supports scientific research.	Graduate Distinguished Human Cadres			√
	Scientific Research		√	

	Faculty of Sciences mission Providing distinguished academic education to graduate distinguished human cadres in theoretical and applied sciences to meet the needs of the labor market and society according to an educational environment that supports scientific research.			
Department's mission	***Keywords***	Distinguished Academic Education	Meet the needs of the labor market and society	Scientific Research
Offering distinguished education in statistics and its applications that prepare students with the knowledge capabilities, and skills needed by the community with exceptional education and administrative environment that promote innovative research.	Distinguished Education	√		
	Innovative Research			√
	Community Services		√	

	Department's mission Offering distinguished education in statistics and its applications that prepares students with the knowledge capabilities, and skills needed by the community with exceptional education and administrative environment that promote innovative research.			
Program's mission	***Keywords***	Distinguished Education	Innovative Research	Community Services
To provide a distinguished education in statistics and its applications that equips students with the knowledge and scientific research skills necessary to serve the community.	Distinguished Education In Statistics	√		
	Research skills		√	
	Serve the community			√

Table 3.2 Relationship between Program Goals and the Goals of Institution/College/Department.

Comparing titles	**University of Tabuk**	**Faculty of Science**	**Department of Statistics**	**Program of Science in Statistics**

Goals	**Gola1:** Providing a distinguished university education that meets the needs of the labor market.	Improving and developing study programs and plans	Prepare statisticians who contribute to the programs and plans of sustainable development in Tabuk region and the Kingdom to keep pace with vision 2030.	To provide the job market with qualified graduates equipped with knowledge, skills, competencies, and continue self-learning.
		Increasing preventive and enrichment programs to support students' abilities	Promote an effective scientific culture in the community in the field of Statistics.	
		Enhancing and developing the capabilities of faculty and staff members	Develop methods and means of teaching to ensure the quality of performance and outputs of the Statistics program.	
	Goal 2: Supporting innovative research to contribute to	Develop a supportive environment for	Achieve excellence in statistical science and production of scientific research to serve the community.	To Conduct scientific research by applying statistical models to solve real-life problems.
			Create an administrative and academic environment conducive to attracting distinguished faculty members and researchers.	

	building a knowledge economy	scientific research	Encourage attendance and participation in scientific conferences, seminars, training courses and workshops.	
	Gola 3: Effective contribution to sustainable development and community service.	Enhancing the fruitful partnership and effective communication between the college and the community.	Build effective partnerships and productive cooperation with the community in Statistics.	To prepare qualified statisticians who work professionally, communicate effectively, and engage in community issues.
	Goal 4: Develop infrastructure, technology and services to provide a stimulating and attractive learning environment	-	-	-
	Goal 5: Developing an effective administrative and organizational environment at the university	-	-	-
	Goal 6: Diversify innovative financing sources and improve financial efficiency	-	-	-

4. Graduate Attributes:

1. Proficiency Statistician.
2. Skillful in statistical computing.
3. Creative and innovative.
4. Positive and flexible collaboration.
5. Specialized in Statistics and its applications.
6. A responsible citizen acts based on Islamic values.

5. Program Learning Outcomes*	
Knowledge and Understanding	
K1	Demonstrate deep knowledge of theories, principles, and concepts of statistics and its related disciplines.
K2	Explain the utilization of statistical tools and techniques in different applications.
Skills	
S1	Calculate various measurements by using appropriate statistical methods.
S2	Examine the basic theorems and various statistical formulas.
S3	Select the fundamental statistical theories and techniques for solving real-life problems.
S4	Argue the results of a statistical analysis effectively via writing, visualizing and orally.
S5	Formulate statistical models to solve real-world problems in appropriate contexts using modern statistical packages and programming languages.
S6	Communicate comprehensive statistical ideas, both orally and in writing with a variety of audiences.
Values	
V1	Demonstrate self-reliance as a responsible citizen, adhere to academic ethics and maintain analytical integrity in the field of statistics.
V2	Collaborate responsibly and engage in self-learning to accomplish tasks and activities in a timely manner, whether working individually or in groups.

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	**9**	**20**	**15%**
	Elective	**0**	**0**	**0**
College Requirements	Required	**11**	**40**	**31%**
	Elective	**0**	**0**	**0%**
Program Requirements	Required	**18**	**61**	**47%**
	Elective	**3**	**9**	**7%**
Others	-	-	-	-
Total		**41**	**130**	**100%**

2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Prerequisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	MATH 100	Mathematics 1	Required		3	College
	CHEM 101	General Chemistry	Required		3	College
	ELS 001	English I	Required		5	College
	BIO 101	General Biology	Required		3	College
	LTS 001	Learning, Thinking, and Research Skills	Required		3	University

Level 2	MATH 101	Mathematics 2	Required	MATH 100	3	College
	PHYS 101	General Physics	Required		3	College
	ELS 002	English II	Required		5	College
	CSC 001	Computer Skills and Its application	Required		3	University
	COMM 001	Communication Skills	Required		2	University
Level 3	CSC 112	Programming Language	Required	CSC 112	4	University
	MATH 200	Fundamentals of Integral Calculus	Required	MATH 101	4	Faculty
	STAT 202	Statistics (1)	Required	MATH 101	4	Department
	ARB 101	Language Skills	Required	None	2	University
	ISLS 101	Islamic Culture (1)	Required	None	2	University
Level 4	MATH 203	Advanced Calculus	Required	MATH 200	4	Faculty
	STAT 203	Statistics (2)	Required	STAT 202	4	Department
	STAT 212	Probability (1)	Required	MATH 101	4	Department
	MATH 241	Linear Algebra	Required	None	3	Faculty
	ISLS 201	Islamic Culture (2)	Required	ISLS 101	2	University
Level 5	STAT 241	Operations Research (1)	Required	MATH 101	2	Department
	STAT 312	Probability (2)	Required	STAT 212	4	Department
	STAT 363	Nonparametric Statistics	Required	STAT 203	3	Department
	STAT 371	Sampling Techniques	Required	STAT 203	3	Department
	ARB 201	Writing Skills	Required	ARB 101	2	University
	ISLS 301	Islamic Culture (3)	Required	ISLS 201	2	University
Level 6	STAT 321	Stochastic Processes	Required	STAT 212	3	Department
	STAT 335	Statistical Inference (1)	Required	STAT 312	3	Department
	STAT 375	Regression Analysis	Required	STAT 203	4	Department
	STAT 373	Demography	Required	STAT 203	3	Department
	STAT XXX	Elective Statistics Course	Elective	STAT XXX	3	Department
Level 7	STAT 461	Categorical Data Analysis	Required	STAT 202	3	Department
	STAT 472	Time Series Analysis	Required	STAT 375	4	Department
	STAT 474	Design and Analysis of Experiments	Required	STAT 203	4	Department
	STAT XXX	Elective Statistics Course	Elective	STATXXX	3	Department
	ISLS 401	Islamic Culture (4)	Required	ISLS 301	2	University
Level 8	STAT 434	Statistical Inference (2)	Required	STAT 335	3	Department
	STAT 464	Multivariate Analysis	Required	STAT 335	3	Department
	STAT 481	Statistical Packages	Required	STAT 375	3	Department
	STAT XXX	Elective Statistics Course	Elective	STAT XXX	3	Department
	STAT 491	Research Project	Required	Department agreement	4	Department

* Include additional levels if needed

** Add a table for each track (if any)

Elective Courses*

	Courses Title	Course Code	Credit
1	Operations Research (2)	STAT 341	3
2	Queuing Theory	STAT 343	3
3	Biostatistics	STAT 358	3
4	Statistical Quality Control	STAT 377	3
5	Scientific Research Methods	STAT 402	3
6	Linear Models	STAT 431	3
7	Reliability Theory	STAT 471	3
8	Survey Designs	STAT 473	3
9	Econometrics	STAT 477	3

* Elective courses are available in the sixth, seventh, and eighth semesters. Each of these academic terms offer three elective courses for students to register for, with consideration given to their anticipated graduation in that specific semester

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

https://drive.google.com/drive/u/1/folders/12uWBEnPJ8YNOVtgujQ0-0a1VkqxXKO8f

4. Program learning Outcomes Mapping Matrix -

Align the program learning outcomes with program courses, according to the following desired levels of performance (**I = Introduced P = Practiced M = Mastered)**

Institution and Faculty Requirements:

Course code	Program Learning Outcomes									
	Knowledge and understanding		Skills						Values	
	K1	K2	S1	S2	S3	S4	S5	S6	V1	V2
MATH 100	I		I	I	I					1
CHEM 101	I								I	
ELS 001	I							I	I	
BIO 101	I								I	
LT S001	I								I	
MATH 101	I		I		I					I
PHYS 101	I								I	
ELS 002	I							I		
CSC 001	I							I		
COMM 001	I							I	I	
CSC 112	I	I						I		I
MATH 200	I		I		I	I			I	
ARB 101	I									I
ISLS 101	I							I	I	I
MATH 203	I		I	I	I				I	I
MATH 241	I		I	I	I				I	
ISLS 201	I							I	I	I
ARB 201	I							I	I	I
ISLS 301	I							I	I	I
ISLS 401	I							I	I	I

Program Requirements

Course code	Program Learning Outcomes									
	Knowledge and understanding		Skills						Values	
	K1	K2	S1	S2	S3	S4	S5	S6	V1	V2
STAT 202	I		I	I	I					P
STAT 203	I	I	I	I			I			P
STAT 212	I		I	I	I					P
STAT 241	I		I		P		P			P
STAT 312	P		P	P	P					P
STAT 363	P		P		P		P			P
STAT 371	P	P	P	P	P					P
STAT 321	P	P	P		P		P	I	P	
STAT 335	P		P	P	P					P
STAT 375	P		P		P	P	P	P	P	
STAT 373	P		P		P	P		P	P	
STAT 461	M(A)		M(A)		M(A)	M(A)		M(A)	M(A)	
STAT 472		M(A)	M	M(A)	M(A)	M(A)	M(A)	M(A)	M(A)	
STAT 474	M(A)		M(A)	M(A)	M(A)	M	M(A)	M(A)		M(A)
STAT 434		M(A)	M(A)	M(A)	M(A)	M(A)		M(A)		M(A)
STAT 464	M(A)	M(A)	M(A)	M(A)	M(A)		M(A)			M(A)
STAT 481	M(A)	M(A)	M(A)		M(A)	M(A)		M(A)	M(A)	M(A)
STAT 491	M(A)				M(A)	M(A)	M(A)	M(A)	M(A)	M(A)

Elective Courses										
STAT 341	P	P	P	P	P					P
STAT 343	P		P	P	P	P	P			P
STAT 358	P	P	P		P	P	M			P
STAT 377	M		M		M	M				P
STAT 402	M		M		M	M		M	P	P
STAT 431	M		M		M		M			P
STAT 471	M		M		M		M	M	P	
STAT 473	M		M	M	M					P
STAT 477	M		M		M	M	M	M	P	

* Add a table for each track)if any(
(A; Assessment)

5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extracurricular activities, to achieve the program learning outcomes.

Faculty members are required to follow course specifications, which are available at the department website. Faculty members are expected to adhere to teaching and learning strategies set out in the program and course specifications, which include:

1. Lectures
2. Lab lectures
3. Discussion
4. Solve problems
5. Group work
6. Case study
7. Cooperative Learning and Teamwork
8. Self-learning
9. Extracurricular Activities

Each course learning outcome needs special methods for teaching and learning strategies according to the nature of the learning outcomes. Faculty members are expected to develop plans outlining how they will implement their teaching and learning strategies to achieve course learning outcomes.

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

The assessment methods

The direct assessment methods include:

1. Quizzes
2. Written Exams
3. Lab Exam
4. Lab Activities
5. Assignments
6. Oral presentation
7. Discussion.

The indirect assessment methods include:

1. Program evaluation survey - UT level
2. Employers Survey - UT level
3. Alumni Survey - UT level
4. Program Learning Outcomes (PLOs) Survey - Program level
5. Extracurricular survey

Alignment of PLOs ,Teaching Strategies and Assessment Methods

Program Learning Outcomes		Teaching Strategies	Assessment Methods
Knowledge and Understanding			
K1	Demonstrate deep knowledge of theories, principles, and concepts of statistics and its related disciplines.	- Lectures - Lab lectures - Self-Learning - Discussion _	- Quizzes - written Exams - Lab Exam - Discussion - PLOs survey
K2	Explain the utilization of statistical tools and techniques in different applications.		
Skills			
S1	Calculate various measurements by using appropriate statistical methods.	- Lectures - Lab lectures - Case study - Group work -Discussion	- Quizzes - Assignments - Written Exams - Lab Exam - Lab Activities - Discussion - PLOs survey-
S2	Examine the basic theorems and various statistical formulas.		
S3	Select the fundamental statistical theories and techniques for solving real-life problems.		
S4	Argue the results of a statistical analysis effectively via writing, visualizing and orally.	- Lectures - Lab lectures - Case study - Group work -Discussion -Extracurricular Activities	- Quizzes - Assignments - Written Exams - Lab Exam - Lab Activities - Discussion - PLOs survey -Extracurricular survey
S5	Formulate statistical models to solve real-world problems in appropriate contexts using modern statistical packages and programming languages.		
S6	Communicate comprehensive statistical ideas, both orally and in writing with a variety of audiences.		
Values, autonomy, and responsibilities			
V1	Demonstrate self-reliance as a responsible citizen, adhere to academic ethics and maintain analytical integrity in the field of statistics.	- Solve problems - Cooperative Learning and Teamwork - Self-learning -Extracurricular Activities	- Assignments - Lab Activities - Oral Presentation - PLOs survey - Extracurricular survey
V2	Collaborate responsibly and engage in self-learning to accomplish tasks and activities in a timely manner, whether working individually or in groups.		

Mechanism of measuring the Program learning outcomes

The program learning outcomes are measured using both direct and indirect methods.

The direct method

Introduction

The direct method is based on the results of measuring course learning outcomes. Course coordinators use methods described in the course specifications. The program applies the following direct method of program learning outcomes assessment:

Assessment of program learning outcomes

It is a summative assessment for students in their last year (4^{th} year- Levels 7 and 8), to confirm the validity of the formative assessments, to track improvements, and to validate and confirm the necessity for the major changes if needed. The plan includes a mechanism and periods for measuring all program learning outcomes in one year over two semesters.

Course and program learning outcomes measurement procedures and steps:

The actual level for the course's learning output is computed using a collection of steps starting from course information up to the final combined course report explained in the quality assurance guide of the program, and summarized below.

Every course coordinator must oversee the assessment methods and questions used to measure the course learning outcomes as agreed upon and stipulated on the first-course coordinator meeting (Coordinator- CLOs measurement template)

Every course instructor must fill and complete the course learning outcomes (CLOs measurement template) which measures the course learning outcomes that are defined in the course specification and aligned with the program learning outcomes.

The coordinator combines the results of all his/her course sections at the end of the semester and completes the combined course learning outcome (CLOs measurement template) which measures the CLO for male, female, and all combined sections.

The measurement of the actual level for the CLO in each section is carried out by calculating the percentage of CLO achievement (number of students who satisfied the success criteria divided by the total number of students who completed the course)×100.

The measurement of the actual level for the CLO in all sections is carried out by calculating the weighted mean of CLO achievement (The sum of percentage of CLO achievement × number of students in each section divided by the total number of students in all sections who completed the course).

The direct method is summarized in the following three steps

Step 1. Determine the courses that are used in the measurement process: (7) statistics courses that were taught at last year (4th year- Levels 7 and 8) which includes in the process of measuring the PLOs.

Step 2. Determine the CLOs included in measuring the PLOs

Step 3. The actual level for a given PLO is computed using the following formula:

$$PLO_k = \frac{(C_1 * N_1) + (C_2 * N_2) + \ldots + (C_h * N_h)}{N_1 + N_2 + \cdots + N_h} = \frac{\sum_{i=1}^{h} C_i * N_i}{\sum_{i=1}^{h} N_i}$$

Where:

PLO_k: Actual level for the k[th] program learning output

C_h : Actual level for the h[th] course's learning output aligned with the k[th] PLQ.

N_h : Number of students who complete the i[th] course.

h : Number of courses.

The actual level for Ch the h[th] course's learning output is computed using a collection of steps starting from course information up to the final report, which are explained in the User Guide for the CLOs measurement file.

The indirect method

Introduction

The program in addition to the direct method, applies also indirect method to ensure that students achieve learning outcomes. The indirect method of assessing program learning outcomes through surveys plays a crucial role in evaluating the effectiveness of the program at the bachelor level. By collecting feedback from program beneficiaries, including, graduates, employees and alumni, this method provides significant insights regarding program learning outcomes achievement which helps to identify areas for improvement.

Time of Measurements and Conducting Surveys

Conduct surveys on a yearly basis: Administer the surveys at regular intervals, preferably annually, to capture the perspectives of all relevant stakeholders. This ensures that the feedback obtained reflects the current state of the program and allows for meaningful comparisons over time.

This method is based on the results of three surveys. The first survey is the program evaluation survey, which is given to students who are expected to graduate. The second is the Employers Survey targeting employers in whose organizations alumni of the program work. The third survey is the alumni survey, which is filled out once a year by the alumni.

Result Analysis and Writing Report

1. The survey is published electronically through a platform of a program's choice.

2. In order to perform statistical analysis, all responses obtained from respondents were coded according to a five-point Likert scale. Strongly disagree (1), Disagree (2), Not sure (3), Agree (4) and Strongly agree (5).

3. The responses were analyzed through statistical analysis software using descriptive statistics methods, which include frequency tables and percentages, for the sake of describing the characteristics of the study sample and calculating means. A five-point Likert scale is used to interpret the results, as shown in Table 9. This analysis will provide an understanding of the overall perception of the program learning outcomes by different stakeholders.

4. Compare results across stakeholder groups: Compare the survey results among students, graduates, employees and alumni to identify any discrepancies or differing perspectives. This comparison might assist in identifying areas of strength or weakness.

5. Identify trends and patterns: Look for common themes or trends in the survey results. Identify specific program learning outcomes that are likely to receive praise and those that might need improvement.

6. Write a comprehensive report: Summarize the survey findings in a clear and concise report. Include an overview of the survey methodology, key findings, and recommendations for program improvement. To enhance readability, present the information in a visually appealing way, like tables or graphs.

D. Student Admission and Support:

1. Student Admission Requirements

All the policies procedures and regulations are available in the following link:

https://www.ut.edu.sa/ar/Deanship/dar/Pages/default.aspx

2. Guidance and Orientation Programs for New Students

Students admitted at the Statistics program are given orientation program on services, facilities available and their rights and responsibilities as well as advice on curriculum matters and career opportunities. The orientation program is conducted once at the beginning of every academic year. Both the academic advisors and the senior students participate in the orientation program.

In the orientation program, students receive a package that includes:

- ✓ The Student Guide Handbook
- ✓ Contact information
- ✓ Academic advising guide
- ✓ Executive rules for student's grievance
- ✓ The rules of study and exams in UT
- ✓ The Academic Calendar.
- ✓ Location of the classrooms prior to the beginning of classes
- ✓ IT guide including how students can activate their email account and change the password.

3. Student Counseling Services
(academic, career, psychological and social)

Statistics Program provides different counselling services via the following procedures:

- The students are distributed among the faculty members, and this is announced on the department website, notice boards, and in the offices of the faculty members.
- Faculty members study students and classify problems (from low GPA, warnings, and other personal problems)
- Faculty members meet with students, study their problems and work on solving them.
- The faculty member writes a set of reports on the forms prepared by the Guidance Unit and submits them to the unit.
- The Academic Guidance Unit makes a comprehensive report that is submitted to the Vice Dean for Academic Affairs to solve the problems and present it to the Dean of the College and take the necessary actions.
- The Training Unit, in conjunction with the Student Club and the Graduate Follow-up Unit, holds training courses for students for psychological and social preparation.
- The students' complaints are posted to the academic Guidance or directly to the vice Dean or the Dean of the college to take the necessary actions towards it.

Counselling Manuals are available at the following link:

https://drive.google.com/drive/folders/17v83rBsSfxeVHKz_Nc9F3N0-U5SKykFg?usp=sharing

4. Special Support
(low achievers, disabled, gifted and talented)

Low achievers

- The Statistics program constitutes an advising committee to investigate reasons for this low performance and provide the necessary support for the students.
- The Statistics program provides a supportive education program for students with low academic performance to improve their academic level.

Disabled

- Priority of assigning classrooms on the ground floor.
- Providing electric lifts.
- Providing private parking.
- Equipping the stairs that help them climb their steps.

Gifted and Talented

- The program advises the talented students to communicate with the Creativity and Talent Unit at the Deanship of Students Affairs.
- The Deanship of Student Affairs launched the program “innovators” to investigate talented students as well as to support and motivate them. Also, provide them with special training courses.

E. Teaching and Administrative Staff

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	**Statistics**	Applied Statistics	Familiarity of the faculty member of statistical packages and languages (SPSS & R).	1	1	2
Associate Professors	**Statistics**	Applied Statistics		**3**	**3**	**6**
Assistant Professors	**Statistics**	Statistics Applied Statistics Mathematical Statistics Operation Research and Statistics		**10**	**10**	**20**
Lecturers	**Statistics**	Statistics Applied Statistics Mathematical Statistics		**2**	**2**	**4**
Others (Teaching assistant))	**Statistics**	Biostatistics Applied Statistics Mathematical Statistics	-	**5**	**5**	**10**
Others (administrative staff)	**Secretary**	-	-	**1**	**1**	**2**
Others (lab technician)	**Computer Science/ Statistics**	-	-	**2**	**2**	**4**

2. Professional Development

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

New Teaching staff at the Statistics program are given orientation program on services, facilities available and their rights and responsibilities as well as advice on curriculum, program and course specifications.

- The HOD and heads of the program committees meet with the new teaching staff to inform them about the rules and regulations concerning all the program activities.
- New teaching staff are nominated to attend special workshops and training programs to help them fit into the program and the institution smoothly.
- The new teaching staff are introduced to all the staff members in the department.
- The new teaching staff are recommended to refer to the Handbooks, specifications and forms available on the university website: https://www.ut.edu.sa/ar/Deanship/human-resource/Pages/default.aspx

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

All teaching staff are required to participate in professional development training programs in a variety of academic work areas, including teaching strategies, assessment methods, quality assurance procedures and research activities. Various university and faculty entities offer training programs, seminars, and other activities.

F. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

Mechanism for providing learning resources:

The Statistics program has a set of clear policies and procedures through an approved mechanism to ensure the adequacy and appropriateness of learning resources and services provided to support program students' learning. To ensure the adequacy and appropriateness of the learning resources and facilities, the Facilities, Equipment and Learning Resources Committee has been established with detailed responsibilities and it consists of faculty members from both male and female sections. Some of the responsibilities include:

1. Preparing developmental plans for the program's computer laboratories.
2. Preparing the program's annual requests for equipment and textbooks.
3. Preparing a quarterly implementation plan for the work and tasks of laboratories and books and submitting a final report on achievements and recommendations for improvement according to the approved models.
4. Submitting a periodic report to the head of the program concerning the committee's activities and program requirements to be raised to the Faculty of Science Learning Resources Committee.

Quality assurance of learning resources:

The program will evaluate the appropriateness' adequacy of learning resources and services provided to support students learning through different surveys for staff members as well as students' evaluation survey and program evaluation survey.

2. Facilities and Equipment
(Library, laboratories, medical facilities, classrooms, etc.).

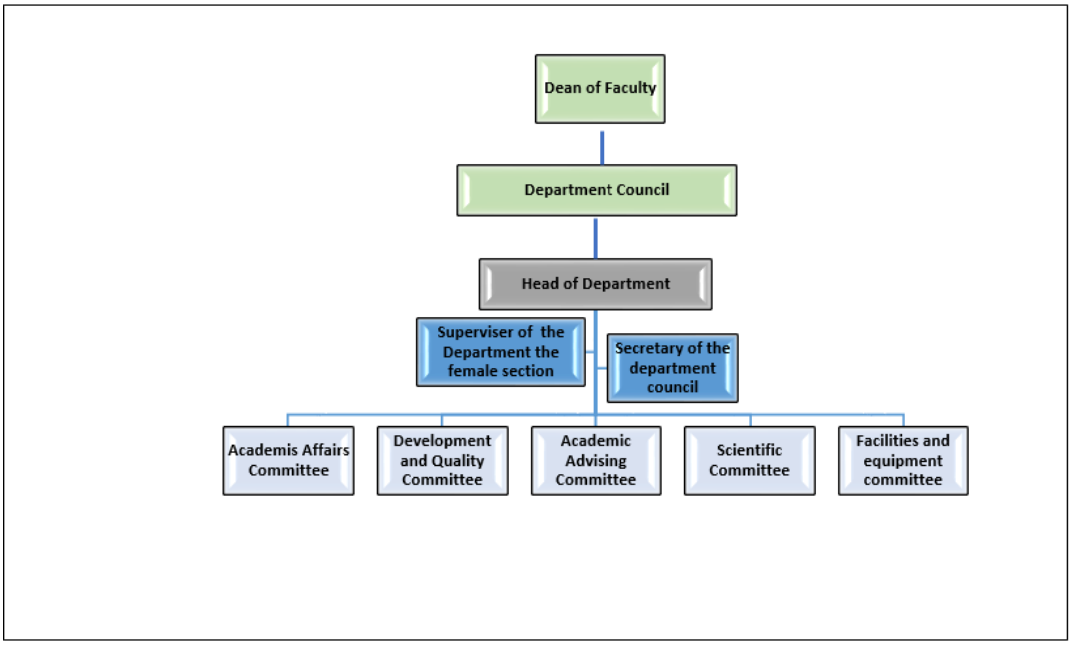
-The University of Tabuk provides a well-ventilated classroom equipped with whiteboards and comfortable seats as well as medical facilities.
-The computer lab has recently been equipped with highly efficient computers connected to the Internet.
- Non-academic activities (cultural and sports) along with special considerations made for students with disabilities.
- The University of Tabuk Deanship of Student Affairs offers smartphones and laptops to students on a monthly payment plan since smartphones and laptops come with useful apps like Blackboard, Microsoft programs and the University of Tabuk (My service).
- In cooperation with the General Administration of Maintenance and Operations at UT, which is supervised by the Vice-President, the Faculty of Science established a Learning Resources Committee consisting of faculty members and employees from both male and female sections to oversee and facilitate the teaching and learning process.

3. Arrangements to Maintain a Healthy and Safe Environment
(According to the nature of the program)

Inapplicable

G. Program Management and Regulations

1. Program Management
1.1 Program Structure
(including boards, councils, units, committees, etc.)



1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)

- The statistics program evaluates its performance for the purpose of development and continual performance improvements by conducting the Employers Surveys, which targets the different external stakeholders.

- The teaching staff has to prepare course reports at the end of each semester. The objective is to determine whether the program learning outcomes have been achieved based on courses' learning outcome assessment. Course evaluation surveys are filled by students, and "Planning for Improvement" used to determine strengths and weaknesses of the plans and the improvements that can be done.

- Students are essential in evaluating the teaching process in statistics program through the Program Evaluation Survey.

- The Faculty of Science advisory committee was formed in 1441-42H through the executive order 42/052/27486 on 8/5/1442H by the president of University of Tabuk. The advisory committee is composed of teaching staff, students, Statistics department and other departments, alumni, as well as employers and the experts comprised of specialists who offer valuable insights and input, improving the program's overall quality and effectiveness. The committee meets to discuss the statistics program's issues.

2. Program Regulations

Provide a list of related program regulations, including their link to the online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

All the policies procedures and regulations are available in the following link:

https://www.ut.edu.sa/ar/Deanship/dar/Pages/default.aspx

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

The program quality assurance manual in the following link:
Quality Assurance Management System Statistics Program.pdf

2. Program Quality Monitoring Procedures

Step 1: Data collection: students and alumni, employers' questionnaires, staff faculty, course reports, personal interviews with students and members / measurement of performance indicators

Step 2: **Study and analyze the data:** Presented to the committee of higher studies and quality and discuss the issues and propose possible solutions

Step 3: Develop an implementation plan for the solutions proposed by a competent committee.

Activity name	Start of semester	End of semester	annually	Every 3 years
Program level activities				
Program specification review				√
Course evaluation surveys		√		
Course report preparation		√		
Course recommendation reporting		√		
Course file preparation and submission		√		
Employer evaluation survey		√		
Alumni evaluation survey			√	
Program KPI report preparation and analysis			√	
Annual program report preparation			√	
Annual program report revision			√	
Recommendations and conclusion			√	
Program self-study report development				√
Course report		√		
Course recommendations report	√			
Course file		√		
Student evaluation surveys		√		
External program assessment				√

3. Arrangements to Monitor Quality of Courses Taught by other Departments.

- Completing course specifications according to the National Center for Academic Accreditation and Assessment templates.
- The faculty member, in coordination with the course coordinator, is obligated to teach the approved course specification, and it is notified to the students at the beginning of the semester with an explanation of its objectives, contents, vocabulary and philosophy, the teaching strategies used, and the various assessment strategies used.
- After completing the course teaching, the faculty member prepares the course report according to NCAAA form in coordination with the course coordinator to prepare a unified course report (includes both male and female students).
- Unified course reports are compiled to prepare the program report in coordination with the program and course coordinators to prepare a unified program report (includes both male and female sections).
- The other departments are requested to provide the course file.

4. Arrangements Used to Ensure the Consistency between Main Campus and Branches (including male and female sections)

- Unifying courses specifications, references, teaching strategies, and courses reports..
- Unifying final and periodic exams.
- Standardized tests in all disciplines

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

All the policies, procedures and regulations are governed by University of Tabuk
Deanship of scientific research

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

The plan for evaluating the learning outcomes of the program and the mechanisms for using its results in the development processes are as follows:

- To ensure the quality and continuous improvement of the program, the learning outcomes are evaluated and measured periodically based on the criteria that indicate the quality of performance according to the NCAAA program.

- The faculty members and staff responsible for the various activities in the program evaluate the level of performance according to these criteria, based on appropriate evidence, with support for this with performance indicators and benchmarking with other programs of a high level of quality, especially in areas of great importance. This self-evaluation is supported by an independent opinion by reviewers or independent reviewers from outside the institution. To enhance the credibility, positioning and accuracy of the evaluation.

- Learning outcomes are evaluated and measured periodically according to the NCAAA program, for each course separately, each semester and every year for the program as a whole.

In order to assess the quality of the program outputs as well as the rates of achieving the targeted learning outcomes and the extent to which the program objectives are achieved, we will take the following procedure:

1- Reviewing the evaluation of the regular students for the courses and the academic program.

2- Reviewing the graduate students' evaluation of the academic courses and program.

3- Reviewing employers' evaluation of graduates' performance.

4- Internal review (self-evaluation) - external review of courses.

5- To enroll faculty members in training courses and workshops to provide them with teaching and professional skills and experiences.

6- Taking the opinion of external reviewers of the program, identifying the strengths and weaknesses, making recommendations for improvement, and making plans to implement these recommendations and their rate of achievement.

7- Distributing questionnaires to employers and the target community of the program.

8 - Organizing periodic meetings with employers and the target community of the program.

Based on all of the above, an improvement plan is prepared and circulated to the stakeholders, where the evaluation processes are used permanently for continuous improvement of the program and feedback on continuous improvement of the program.

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Effectiveness of teaching & assessment	Students, Alumni, Independent Auditor	Surveys Report	End of academic year
Learning resources	Students Independent Auditor	Surveys Visits	End of academic year
Facilities and Equipment	Students, Alumni	Surveys	Beginning of Trimesters and end of academic year

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify)
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

The period to achieve the target (one) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives		Reports	End academic year
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program		Survey	End academic year
3	KPI-P-03	Students' evaluation of the quality of the courses		Survey	End academic year
4	KPI-P-04	Completion rate		Report	End academic year
5	KPI-P-05	First-year students retention rate		Report	End academic year
6	KPI-P-06	Students' performance in the professional and/or national examinations		NA	NA
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs		Survey	End academic year
8	KPI-P-08	Average number of students in the class		Report	End academic year
9	KPI-P-09	Employers' evaluation of the program graduates proficiency		Survey	End academic year
10	KPI-P-10	Students' satisfaction with the offered services		Survey	End academic year
11	KPI-P-11	Ratio of students to teaching staff		Report	End academic year
12	KPI-P-12	Percentage of teaching staff distribution		Report	End academic year
13	KPI-P-13	Proportion of teaching staff leaving the program		Report	End academic year
14	KPI-P-14	Percentage of publications of faculty members		Report	End academic year

15	KPI-P-15	Rate of published research per faculty member		Report	End academic year
16	KPI-P-16	Citations rate in refereed journals per faculty member		Report	End academic year
17	KPI-P-17	Satisfaction of beneficiaries with the learning resources		Survey	End academic year

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	Department Council
Reference No.	**2**
Date	**05/02/1443 H** **LAST UPDATED : 27/02/1445H**