



Course Specification

(Bachelor)

Course Title: **Statistical Methods**

Course Code: **BIDA127**

Program: **Business Intelligence and Data Analysis**

Department: **computer**

College: **Applied College**

Institution: **Najran University**

Version: **1**

Last Revision Date: **13\12\1446** *Pick Revision Date.*

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A. General information about the course:

1. Course Identification

1. Credit hours: (3 hours)

3

2. Course type

- A. ☐ University ☐ College ☐ Department ☐ Track ☐ Others
- B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (1st Year, Term2.....)

4. Course General Description:

Examines the use of statistical methods to make predictions, estimate parameters, and test hypotheses. Learners display data with graphs, describe distributions with numbers, perform correlation and regression analyses and design experiments.

5. Pre-requirements for this course (if any): MATH100

no

6. Co-requisites for this course (if any): N\A

no

7. Course Main Objective(s):

Introduces students to the use of statistical methods in business intelligence and data analysis.
Prepares students to apply the basic principles of regression analysis and correlation.
Students learn to prepare graphs and other visual representations of statistical data.

2. Teaching mode (mark all that apply)





| No | Mode of Instruction | Contact Hours | Percentage |
|----|---|---------------|------------|
| 1 | Traditional classroom | 48 | 100 |
| 2 | Blended | | |
| 3 | Hybrid <ul style="list-style-type: none"> E-learning | | |
| 4 | Distance learning | | |
| 5 | Other | | |

3. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|-------|-------------------|---------------|
| 1. | Lectures | 24 |
| 2. | Laboratory/Studio | 24 |
| 3. | Field | |
| 4. | Tutorial | |
| 5. | Others (specify) | |
| Total | | 48 |

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of PLOs aligned with the program | Teaching Strategies | Assessment Methods |
|------|--|---------------------------------------|--|------------------------|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | K1 Summarize the basic principles and concepts of statistics | K1 | Reading Presentation Class Discussion Internet research | Quiz |
| 1.2 | K2 Explain the role of statistics in business data analysis | K2 | Reading Presentation Class Discussion Internet research | Quiz |
| ... | | | | |
| 2.0 | Skills | | | |
| 2.1 | S1 Apply fundamenta | S1 | Reading Presentation | Exam Lab Activities |





| Code | Course Learning Outcomes | Code of PLOs aligned with the program | Teaching Strategies | Assessment Methods |
|--------|---|---------------------------------------|---|----------------------------|
| | Concepts of descriptive statistics | | Class Discussion Lab Activities | |
| 2.2 | S2 Employ basic principles of regression analysis and correlation to analyze relationships between variables | S2 | Reading Presentation Class Discussion Lab Activities | Exam Lab Activities |
| 2.3... | S3 Apply probability theory and distributions to analyze random phenomena | S3 | Reading Presentation Class Discussion Lab Activities | Exam Lab Activities |
| 2,4 | S4 Apply basic statistical analysis methods to interpret data, formulate and test hypotheses, and draw valid conclusion | | Reading Presentation Class Discussion Lab Activities | Exam Lab Activities |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | V1 Adhere to data ethics | | Group project Case Study problems | Exam Case Study problem |
| 3.2 | V2 Demonstrate Professionalism | | Group project Case Study problems | Exam Case Study problem |
| 3.3.. | V3 Communicate effectively with a range of audiences | | Group project Case Study problems | Exam Case Study problem |

C. Course Content

| No | List of Topics | Contact Hours |
|----|---|---------------|
| 1. | Introduction to Business Statistics: Fundamentals and Application | 5 |
| 2. | Descriptive Statistics: Analyzing and Summarizing Data in Business | 5 |
| 3. | Probability and Probability Distribution: Understanding Uncertainty in Business | 5 |





| | | |
|-------|---|----|
| 4. | Sampling Techniques and Sampling Distribution: Drawing Inferences from Data | 5 |
| 5. | Hypothesis Testing: Making Informed Decisions in Business | 5 |
| 6 | Regression Analysis: Predicting and Modeling Relationships in Business | 5 |
| 7 | Time Series Analysis: Forecasting Trends and Patterns in Business Data | 5 |
| 8 | Analysis of Variance (ANOVA): Comparing Means in Business Experiments | 5 |
| 9 | Nonparametric Methods: Analyzing Data when Assumptions are Violated | 4 |
| 10 | Multivariate Analysis: Exploring Relationships among Multiple Variables in business | 4 |
| Total | | 48 |

D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|-----|-------------------------|--------------------------------|--------------------------------------|
| 1. | Midterm Exam | 8 | 25% |
| 2. | Homework's | During Semester | 15% |
| 3. | Practical Exam | 14 | 20% |
| ... | Final Exam | End of semester | 40% |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources Title: Introduction to Business Statistics

Publisher: Cengage Learning

Published year: 2010

Author: Ronald M. Weiers

ISBN: 9781111792374

| | |
|--------------------------|--|
| Essential References | |
| Supportive References | |
| Electronic Materials | |
| Other Learning Materials | |





2. Required Facilities and equipment

| Items | Resources |
|---|---|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | Classroom IT Lab |
| Technology equipment (projector, smart board, software) | Smartboard Presentation Technology Computer with MS Office |
| Other equipment (depending on the nature of the specialty) | |

F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|---|---|
| Effectiveness of teaching | Students, External Reviewers Visit from Accreditation Agen-cy | Survey |
| Effectiveness of Students assessment | Program L eader | Observation(Direct) |
| Quality of learning resources | Quality and Development Unit Curriculum Committee | Teachers feedback, Sudents feed bak,Course report, Pro-fessional certification achievement test |
| The extent to which CLOs have been achieved | Quality and Development Unit Curriculum Committee | Annual improvement quality program review |
| Other | | |

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

| | |
|---------------------------|-----------------|
| COUNCIL /COMMITTEE | المجلس التنفيذي |
| REFERENCE NO. | 4600081176 |
| DATE | 22\12\1446 |

