



Program Specification

(Bachelor)

Program Name: Business Intelligence and Data Analysis

Program Code (as per Saudi university ranking): No 061902

Qualification Level: Intermediate Diploma

Department: computer department

College: Applied College

Institution: Najran university

Program Specification: New updated*

Last Review Date: 6/7/2025

*Attach the previous version of the Program Specification.



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A. Program Identification and General Information

1. Program's Main Location :

Najran University

2. Branches Offering the Program (if any):

No branches

3. Partnerships with other parties (if any) and the nature of each:

Python Organization.
Microsoft Company.

4. Professions/jobs for which students are qualified

BI Specialist
Data Analyst
BI developer
Data Specialist
Data visualization specialist
BI Analyst

5. Relevant occupational/ Professional sectors:

IT departments in the public and private sectors
Technology companies
Data analysis companies

6. Major Tracks/Pathways (if any):

| Major track/pathway | Credit hours (For each track) | Professions/jobs (For each track) |
|---------------------|----------------------------------|--------------------------------------|
| 1. no | | |
| 2. | | |
| 3. | | |
| ... | | |

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

| exit points/awarded degree | Credit hours |
|--|--------------|
| Associate Diploma in Business Intelligence and Data Analysis | 38 |
| Intermediate Diploma in Business Intelligence and Data Analytics | 71 |
| 1. | |

8. Total credit hours: (.....)



B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

The mission of the Business Intelligence and Data Analysis program is to provide quality education that is appropriate for the labor market needs and community development through quality curriculum and learner-focused instructional approaches

2. Program Goals:

- To significantly improve the quality of the program in relation to assessments against the National Center for Academic Accreditation and Evaluation (NCAAA), local and international standards
- The alignment of the PLOs to industry requirements as defined by the DACUM.
- Provide students with a variety of options for developing skills required in the business intelligence and data analysis industry through one two-year diploma and three certification options.
- To improve and develop the skills of faculty members.
- To introduce and extend mechanisms for conducting training and updating manpower skills in industry and other national sectors.
- Expand the educational opportunities for business intelligence and data analysis professionals in the Kingdom of Saudi Arabia

3. Program Learning Outcomes*

Knowledge and Understanding

| | |
|----|---|
| K1 | Explain how business intelligence and data analysis are used in the business field |
| K2 | Demonstrate technical, analytical, and creative skills that are fundamental to problem solving and decision-making in a business organization |

Skills

| | |
|------|--|
| S1 | Use BI and DA tools and techniques to improve business operations, support decision-making functions and evaluate organization solutions |
| S2 | Design, implement, and evaluate a data-driven solution to meet a given set of requirements of the organization in the context of the business intelligence and data analysis |
| S3 | Draw accurate conclusions from data analyses of real-world problems with a business-focused mindset |
| S4 | Develop reports and visual presentation of data, including forms, charts, and graphs to communicate analysis results to stakeholders |
| S... | |

Values, Autonomy, and Responsibility

| | |
|----|---|
| V1 | Work effectively and efficiently both independently and as part of a team |
|----|---|





| | |
|----|---|
| V2 | Demonstrate professionalism, honesty, and integrity when working to accomplish business intelligence and data analysis objectives |
|----|---|

* Add a table for each track or exit Point (if any)

C. Curriculum

1. Curriculum Structure

| Program Structure | Required/ Elective | No. of courses | Credit Hours | Percentage |
|----------------------------|-----------------------|-------------------|-----------------|-------------|
| Institution Requirements | Required | 7 | 21 | 30% |
| | Elective | | | |
| College Requirements | Required | | | |
| | Elective | | | |
| Program Requirements | Required | 12 | 36 | 51% |
| | Elective | 3 | 9 | 12 |
| Capstone Course/Project | | 1 | 3 | 4 |
| Field Training/ Internship | | 1 | 2 | 3 |
| Residency year | | | | |
| Others | | | | |
| Total | | 24 | 71 | 100% |

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

2. Program Courses

| Level | Course Code | Course Title | Required or Elective | Pre- Requisite Courses | Credit Hours | Type of requirements (Institution, College, or Program) |
|---------|-------------|----------------------------------|-------------------------|------------------------------|-----------------|---|
| Level 1 | ENGL101 | English I | Gen Ed Re-quirement | None | 3 | Institutional |
| | MATH100 | Math | Core | None | 3 | Program |
| | COMP100 | Computer Skills | Gen Ed Re-quirement | None | 3 | Institutional |
| | BIDA100 | BI and DA Funda-mentals | Core | None | 3 | Program |
| | ACG1001 | Ethics | Gen Ed Re-quirement | None | 3 | Institutional |
| | BIDA120 | Business Planning Analysis | Core Course | none | 3 | Program |
| Level 2 | ENGL102 | English III | Gen Ed Re-quirement | ENGL101 | 3 | Institutional |
| | COMP110 | Digital Literacy Skills | Gen Ed Re-quirement | COMP100 | 3 | Institutional |
| | BIDA110 | Statistical Methods | Core Course | MATH100 | 3 | Program |





| Level | Course Code | Course Title | Required or Elective | Pre-Requisite Courses | Credit Hours | Type of requirements (Institution, College, or Program) |
|---------|-------------|----------------------------------|----------------------|-----------------------|--------------|---|
| | BIDA140 | Basic Scripting and Programming | Core Course | COMP110 | 3 | Program |
| | BIDA120 | Business Analysis Planning | Core Course | BIDA100 | 3 | Program |
| | BIDA150 | Requirements Analysis and Design | Core Course | BIDA100 | 3 | Program |
| | BIDA220 | Database Development | Core Course | NONE | 3 | Program |
| Level 3 | ENGL103 | English III | Gen Ed Re-quirement | ENGL102 | 3 | Institutional |
| | BIDA230 | Effective business communication | Core Course | NONE | 3 | Program |
| | BIDA245 | Advanced-Programming | Core Course | BIDA140 | 3 | Program |
| | BIDA250 | Machine learning | Core Course | none | 3 | Program |
| | BIDA240 | Data Management and Analysis | Core Course | COMP110 | 3 | Program |
| | BIDA210 | Elicitation techniques | Core Course | com110 | 3 | Program |
| Level 4 | ENGL212 | English for the Workplace | Gen Ed Re-quirement | ENGL103 | 3 | Institutional |
| | BIDA260 | Data Visualization | Core Course | COMP110 | 3 | Program |
| | BID270 | Project management | Core Course | NONE | 3 | Program |
| | BIDA280 | Business Analysis Capstone | Core Course | Department Approval | 3 | Program |
| | BIDA290 | Analysis Solution Evaluation | Core Course | BIDA100 | 3 | Program |
| Level7 | BIDA295 | Training Course - BIDA | Field Training | Department Approval | 2 | Program |

* Include additional levels (for three semesters option or if needed).

** Add a table for the courses of each track (if any)

3. Course Specifications:

Insert hyperlink for all course specifications using NCAAA template (T-104)

4. Program learning Outcomes Mapping Matrix:





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

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

| Course code & No. | Program Learning Outcomes | | | | | | | | | | |
|-------------------|-----------------------------|----|----|-----|--------|----|----|-----|--------------------------------------|----|------|
| | Knowledge and understanding | | | | Skills | | | | Values, Autonomy, and Responsibility | | |
| | K1 | K2 | K3 | --- | S1 | S2 | S3 | --- | V1 | V2 | ---- |
| BIDA100 | I | I | I | I | I | I | I | | I | X | |
| BIDA110 | I | I | I | | I | I | P | | P | X | |
| BIDA120 | P | P | I | I | I | I | P | | P | I | |
| BIDA140 | | P | P | | | | P | | P | X | |
| BIDA150 | P | P | P | P | P | | P | | P | X | |
| BIDA200 | | P | P | | | | P | | P | P | |
| BIDA210 | P | | P | P | | | P | | P | I | |
| BIDA220 | | P | P | | | | P | | P | I | |
| BIDA230 | P | | | | | P | P | | P | I | |
| BIDA240 | P | P | P | P | P | P | P | | P | I | |
| BIDA245 | | P | P | | | | P | | P | I | |
| BIDA250 | | P | P | | | | P | | P | X | |
| BIDA260 | P | P | P | | | P | P | | P | I | |
| BIDA270 | P | P | P | P | P | P | P | | P | I | |
| BIDA280 | M | M | M | M | M | M | M | | M | A | |
| BIDA290 | | P | | P | | P | P | | P | A | |
| BIDA295 | M | M | M | M | M | M | M | | M | | |

5. Teaching and learning strategies applied to achieve program learning outcomes.

Describe teaching and learning strategies and curricular and extra-curricular activities adopted to achieve the Program's learning outcomes in all areas.

- Lab activities
- Collaborative learning with peers and technology
- Problem-Based Learning engages students in the process of problem solving.
- Brainstorming where students participate to presents their ideas or views.
- Case Study activities
- Practice problems



- Lecture and discussion
- Field Training
- Interactive learning by class discussion or using Blackboard forum and professional certifications educational portals

6. Assessment Methods for program learning outcomes.

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

The Program should devise a plan for assessing Program Learning Outcomes (all learning outcomes should be assessed at least twice in the bachelor program's cycle and once in other degrees).

- Project-based assessment
- Assignments
- Individual and group projects
- Quizzes
- Term and Final Exams
- Performance Demonstration (lab-based)
- Achieving professional certification
- University Survey

D. Student Admission and Support:

1. Student Admission Requirements

- High school diploma
- As per the university policy

2. Guidance and Orientation Programs for New Students

(Include only the exceptional needs offered to the students of the Program that differ from those provided at the institutional level).

- Faculty provides new student orientation.
- Faculty office hours for counseling
- Program advisors help students understand program requirements and registration processes.
- Career days are conducted where faculty, administrators and employers are invited to advise students.
- Professional certification boot camp to increase the awareness of the professional certifications` needs on the job market

3. Student Counseling Services

(Academic, professional, psychological, and social)

(Include only the exceptional needs offered to the students of the Program that differ from those provided at the institutional level).

- Program advisory committee provides information on career requirements.
- Faculty conduct office hours.
- Career Counseling is provided by the faculty, advisors, and employers.
- Academic affairs provide information on job market opportunities





4. Special Support

(Low achievers, disabled, gifted, and talented students).

- Support services for students with disabilities

E. Faculty 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 | N/A | N/A | N/A | N/A | N/A | N/A |
| Associate Professors | 1 | 1 | Power BI, PCEP and PCAP certified | 2 | 2 | 4 |
| Assistant Professors | 3 | 3 | Power BI, PCEP and PCAP certified | 3 | 3 | 6 |
| Lecturers | 1 | 1 | Power BI, PCEP and PCAP certified | 1 | 1 | 2 |
| Teaching Assistants | N/A | N/A | | N/A | N/A | N/A |
| Technicians and Laboratory Assistants | 1 | N/A | | 1 | 1 | 2 |
| Administrative and Supportive Staff | 1 | N/A | | 1 | 1 | 2 |
| Others (specify) | | | | | | |

F. Learning Resources, Facilities, and Equipment:

1. Learning Resources

Learning resources required by the Program (textbooks, references, e-learning resources, web-based resources, etc.)

- Textbook committee
- Departmental review
- Course Portfolios
- Professional certifications academies

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

- Classrooms with Smart Board, computer, MS Office, projector, and screen
- IT Labs:
 - Windows Operating System
 - MS Power BI
 - Tableau

3. Procedures to ensure a healthy and safe learning environment



(According to the nature of the Program)

- Regular Department meetings to address questions and issues.
- Interdepartmental communication to address questions and issues

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to the quality assurance manual.

Organization Intranet (i.e., Sharepoint, etc.)

2. Procedures to Monitor Quality of Courses Taught by other Departments

- Employer surveys
- Graduate Surveys
- Program Outcome Assessment Data
- Course evaluations
- Program Quality Review process
- Alumni surveys

3. 3-Procedures Used to Ensure the Consistency between Main Campus and Branches (including male and female sections).

- Assign coordinator to have consistency between male and female campus

4. Assessment Plan for Program Learning Outcomes (PLOs),

- Assessment data on student Capstone Projects analyzed on a regular basis.
- Continuous program improvement objectives are established and reviewed annually.

Assessment data is used to drive curriculum updates, equipment purchases, and other program quality decisions

5. Program Evaluation Matrix

| Evaluation Areas/Aspects | Evaluation Sources/References | Evaluation Methods | Evaluation Time |
|--|-------------------------------|---|------------------|
| Effectiveness of teaching and assessment | Students | Course Evaluation Surveys Professional Certification | End of semester. |



| Evaluation Areas/Aspects | Evaluation Sources/References | Evaluation Methods | Evaluation Time |
|--|-------------------------------|--------------------|-----------------------|
| Effectiveness of teaching and assessment | Graduates, Employers | Surveys | End of academic year. |
| Leadership | Faculty, staff | Surveys | End of academic year |

Evaluation Areas/Aspects: e.g., leadership, effectiveness of teaching & assessment, learning resources, services, partnerships, etc.

Evaluation Sources: students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, etc.

Evaluation Methods: e.g., Surveys, interviews, visits, etc.

Evaluation Time: e.g., beginning of semesters, end of the academic year, etc.





6. Program KPIs*

The period to achieve the target (____) year(s).

| No. | KPIs Code | KPIs | Targeted Level | Measurement Methods | Measurement Time |
|-----|-----------|--|----------------|---|----------------------|
| 1 | | Number of Professional Certification & Exemption | 80-90 % | Number of Professional Certification student obtained | End of each semester |
| 2 | | Proportion of students (available for employment) who are employed within six months of graduation | 80% | Surveys | End of academic year |
| 3 | | Program completion rate | 90% | Final passing rate | End of academic year |

*including KPIs required by NCAAA

H. Specification Approval Data:

| | |
|---------------------|-----------------|
| Council / Committee | المجلس التنفيذي |
| Reference No. | 4600081176 |
| Date | 22/12/1446هـ |

