



T-104  
2022

## Course Specification



|   |
|---|
| Course Title: <b>Introduction to database</b> |
| Course Code: <b>3-CIS 272</b>                 |
| Program: <b>Programming and databases</b>     |
| Department: <b>Computer Department</b>        |
| College: <b>Applied college</b>               |
| Institution: <b>Najran University</b>         |
| Version: <b>T -104 2022</b>                   |
| Last Revision Date: <b>17 Aug 2023</b>        |



## Table of Contents:

| Content   | Page |
|---|------|
| A. General Information about the course                                 | 3    |
| 1. Teaching mode (mark all that apply)                                  | 3    |
| 2. Contact Hours (based on the academic semester)                       | 3    |
| B. Course Learning Outcomes, Teaching Strategies and Assessment Methods | 4    |
| C. Course Content   | 5    |
| D. Student Assessment Activities  | 6    |
| E. Learning Resources and Facilities                                    | 6    |
| 1. References and Learning Resources                                    | 6    |
| 2. Required Facilities and Equipment                                    | 6    |
| F. Assessment of Course Quality   | 7    |
| G. Specification Approval Data  | 7    |



## A. General information about the course:

| Course Identification  |  |
|--|--|
| 1. Credit hours:   | 3(1+2)   |
| 2. Course type   |  |
| a.   | University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Track <input type="checkbox"/> Others <input type="checkbox"/> |
| b.   | Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>   |
| 3. Level/year at which this course is offered:   | 2 <sup>nd</sup> semester first semester  |
| 4. Course general Description  |  |
| <p>The course covers principles of database, the essential skills required to create and manage a simple database, introduces the concepts of good database design, and covers the key features of a normalised database design. It deals with creating and using Tables and their Relationships, Queries, Forms and Reports and shows how these can be combined into a simple but effective application. It also discusses some of the issues involved with managing databases. It emphasises good design practices that lead to flexible and adaptable databases and deals with creating and amending Tables and their Relationships, Queries, Forms and Reports, showing how these can be combined into a simple but effective application.</p> |  |
| 5. Pre-requirements for this course (if any):  |  |
| No Exist   |  |
| 6. Co- requirements for this course (if any):  |  |
| No Exist   |  |
| 7. Course Main Objective(s)  |  |
| <p>This course provides an introduction to the basic concepts of Microsoft Access, the necessary knowledge to design and build a straightforward but functional database and skills to build complete database solutions. On completion of this course, the student will be able to use an existing Access Database effectively and be able to create and modify Tables, Queries, Forms and Reports. Student will understand how to create a normalised relational design.</p>   |  |

### 1. Teaching mode (mark all that apply)

| No    | Mode of Instruction  | Contact Hours   | Percentage |
|-------|--|-----------------|------------|
| 1.    | Traditional classroom  | 4hours per week | 95%        |
| 2.    | E-learning   |                 | 5%         |
| 3.    | Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul> |                 |            |
| 4.    | Distance learning  |                 |            |
| TOTAL |  |                 | 100%       |



## 2. Contact Hours (based on the academic semester)

| No    | Activity          | Contact Hours |
|-------|-------------------|---------------|
| 1.    | Lectures          | 30 Hours      |
| 2.    | Laboratory/Studio | 30 Hours      |
| 3.    | Field             | -             |
| 4.    | Tutorial          | -             |
| 5.    | Others (specify)  | -             |
| Total |                   | 60 Hours      |

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

| Code | Course Learning Outcomes   | Code of CLOs aligned with program | Teaching Strategies   | Assessment Methods  |
|------|--|-----------------------------------|---|---|
| 1.0  | Knowledge and understanding  |                                   |   |   |
| 1.1  | Describe the database design principles and concepts   | K1                                | <ul style="list-style-type: none"> <li>Lecture</li> <li>group discussion</li> </ul> | <ul style="list-style-type: none"> <li>Exams</li> <li>Assignment</li> </ul>             |
| 1.2  | Explain the various features and options available in Microsoft Access for modifying and managing database objects | K2                                | <ul style="list-style-type: none"> <li>Lecture</li> <li>group discussion</li> </ul> | <ul style="list-style-type: none"> <li>Exams</li> <li>Assignment</li> </ul>             |
| ...  |  |                                   |   |   |
| 2.0  | Skills   |                                   |   |   |
| 2.1  | Design database objects in Microsoft Access  | S1                                | <ul style="list-style-type: none"> <li>Lab</li> <li>Project</li> </ul>              | <ul style="list-style-type: none"> <li>Project discussion</li> <li>Lab Exams</li> </ul> |
| 2.2  | Analyze data within the database   | S2                                | <ul style="list-style-type: none"> <li>Lecture</li> <li>Project</li> </ul>          | <ul style="list-style-type: none"> <li>Exams</li> </ul>                                 |
| ...  | Present data in a clear and concise manner using forms and reports   | S3                                | <ul style="list-style-type: none"> <li>Lab</li> <li>Project</li> </ul>              | <ul style="list-style-type: none"> <li>Project discussion</li> <li>Lab Exams</li> </ul> |
| 3.0  | Values, autonomy, and responsibility   |                                   |   |   |
| 3.1  | Accomplish team work to do database project.   | V1                                | <ul style="list-style-type: none"> <li>group work</li> <li>Lab</li> </ul>           | <ul style="list-style-type: none"> <li>Group presentation</li> <li>Project</li> </ul>   |
| 3.2  |  |                                   |   |   |
| ...  |  |                                   |   |   |

## C. Course Content

| No           | List of Topics   | Contact Hours |
|--------------|--|---------------|
| 1.           | Introduction to Database Concepts  | 2<br>2        |
| 2.           | Introduction to Access<br>Lab: Introduction to access environment  | 2<br>2        |
| 3            | Create and modify tables<br>Lab: Creating Access Tables. Creating new tables, changing a table design, setting the primary key, Manage table records and manipulating tables. Create and modify fields | 4<br>4        |
| 4            | Manage table relationships and keys<br>Lab: Table Relationship , Integrity Rules and keys  | 2<br>2        |
| 5            | Create and modify queries<br>Lab: Selecting Data with Quires. Creating Query , Changing the Sort Order and Adding Fields   | 4<br>4        |
| 6            | Modify forms in layout view<br><b>Lab:</b> Creating Basic Access Forms   | 2<br>2        |
| 7            | Normalization<br><b>Lab:</b> Working with Data on Access Forms   | 2<br>2        |
| 8            | Data Manipulation Languages<br>Lab: Creating Basic Access reports  | 2<br>2        |
| 9            | Modify database structure<br>Lab: import objects or data from other sources, delete database objects hide and display objects in the Navigation Pane   | 2<br>2        |
| 10           | Print and export data<br>Lab: configure print options for records, forms, and reports, export objects to alternative formats   | 4<br>4        |
| 11           | Using Operators and Expressions in Access<br>Lab: Creating complex queries, Building queries with simple criteria ,Using multiple criteria in a query  | 2<br>2        |
| 12           | Transforming Data in Access<br>Lab: Finding and removing duplicate records, Filling in blank fields, Concatenating, Changing case, Removing leading and trailing spaces                                | 2<br>2        |
| <b>Total</b> |  | <b>60</b>     |





## D. Students Assessment Activities

| No  | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|-----|-------------------------|--------------------------------|--------------------------------------|
| 1.  | Mid-Term exam           | 8                              | 20%                                  |
| 2.  | Years Duties            | continuously                   | 10%                                  |
| 3.  | Practical exam          | 16                             | 20%                                  |
| ... | Final exam              | 17                             | 50%                                  |

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

## E. Learning Resources and Facilities

### 1. References and Learning Resources

|                          |   |
|--------------------------|---|
| Essential References     | Alexander, M., & Kusleika, R. (2018). Access 2019 Bible.  |
| Supportive References    |   |
| Electronic Materials     | <a href="http://lms.nu.edu.sa/webapps/portal/frameset.jsp">http://lms.nu.edu.sa/webapps/portal/frameset.jsp</a><br>المكتبة الرقمية<br><a href="http://lib.nu.edu.sa/DigitalLibrary.aspx">http://lib.nu.edu.sa/DigitalLibrary.aspx</a> |
| Other Learning Materials |   |

### 2. Required Facilities and equipment

| Items  | Resources  |
|--|--|
| facilities<br>(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | <ul style="list-style-type: none"> <li>• One class room with 30 seats</li> <li>• One Lab with 30 PC</li> </ul>   |
| Technology equipment<br>(projector, smart board, software)                         | <ul style="list-style-type: none"> <li>• data show</li> <li>• software's (MS-office 2016, Windows 10)</li> </ul> |
| Other equipment<br>(depending on the nature of the specialty)                      |  |



## F. Assessment of Course Quality

| Assessment Areas/Issues                     | Assessor                             | Assessment Methods                               |
|---|--------------------------------------|--|
| Effectiveness of teaching                   | Student                              | Questionnaire                                    |
| Effectiveness of students assessment        | examination committee                | Questionnaire and exam audit                     |
| Quality of learning resources               | Faculty Administration               | Review and check the results                     |
| The extent to which CLOs have been achieved | Quality management in the department | A review of the measurement of learning outcomes |
| Other                                       |                                      |  |

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval Data

|                    |            |  |
|--------------------|------------|--|
| COUNCIL /COMMITTEE |            |  |
| REFERENCE NO.      |            |  |
| DATE               | 22-08-2023 |  |

