T-104
2022

# Course Specification
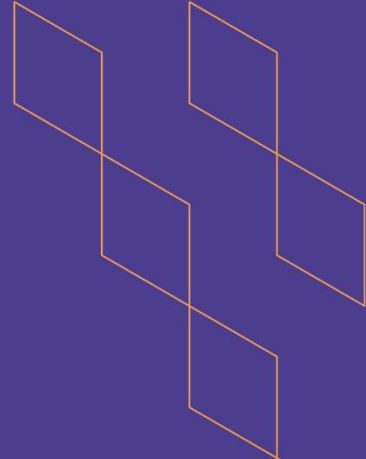
| |
|---|
| **Course Title:** **IT Audit and Controls** |
| **Course Code:** IT10802 |
| **Program:** Information Technology |
| **Department:** Information Technology |
| **College:** Computer science and Information Technology |
| **Institution:** AL-Baha University |
| **Version:** **2022** |
| **Last Revision Date:** *29/3/2023* |

# Table of Contents:

# A. General information about the course:

| Course Identification | |
|---|---|
| **1. Credit hours:** | 3 |

**2. Course type**

| a. | University ☐ | College ☐ | Department ☒ | Track☐ | Others☐ |
|---|---|---|---|---|---|
| b. | Required ☐ | Elective☐ | | | |

**3. Level/year at which this course is offered: 8th/3rd Year**

**4. Course general Description**

This course introduces the fundamental concepts of the information technology audit and control function. The main focus of this course is on understanding information controls, the types of controls and their impact on the organization, and how to manage and audit them. The concepts and techniques used in information technology audits will be presented. Students will learn the process of creating a control structure with goals and objectives, audit an information technology infrastructure against it, and establish a systematic remediation procedure for any inadequacies. The challenge of dealing with best practices, standards, and regulatory requirements governing information and controls is addressed.

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

**6. Co- requirements for this course (if any):**

**7. Course Main Objective(s)**

The main objective for this course is to understanding of and competency in the following topics:
• Establish an understanding of the IT environment and the role of the IT auditor, • Recognize how corporate and IT governance practices impact the IT audit process, • Develop an understanding of the IT audit process i.e., risk assessment, planning, standards, • guidelines and best practices, and • Survey IT audit approaches to: o Systems development and maintenance, o IT security, o IT service delivery and support, o Business continuity and disaster recovery, and o Data analytics and fraud detection.

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

| No | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1. | Traditional classroom | 33 | 100% |
| 2. | E-learning | | |
| 3. | Hybrid <br> • Traditional classroom <br> • E-learning | | |
| 4. | Distance learning | | |

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

| No | Activity | Contact Hours |
|----|----------|---------------|
| 1. | Lectures | 33 |
| 2. | Laboratory/Studio | |
| 3. | Field | |
| 4. | Tutorial | |
| 5. | Others (specify) | |
| | Total | 33 |

## 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 | Illustrate an understanding of the IT environment and the role of the IT auditor | K1 | Lectures<br>Class discussions | Midterm Exam |
| 1.2 | Recognize how corporate and IT governance practices impact the IT audit process. | K1 | Lectures<br>Class discussions | Midterm Exam |
| … | | | | |
| 2.0 | Skills | | | |
| 2.1 | Develop an understanding of the IT audit process i.e., risk assessment, planning, standards, guidelines and best practices | S2 | Lectures<br>Assignments | Midterm Exam<br>Report<br>Final Exam |
| 2.2 | Evaluate the organization's IT strategies, policies, standards, procedures, and practices (including risk management and monitoring and assurance) to ensure that IT supports the organization's strategies and objectives | S3 | Lectures<br>Assignments | Homework<br>Quiz<br>Final Exam |
| 2.3 | Evaluate the design, implementation and monitoring of various security controls to ensure that information assets | S4 | Lectures<br>Assignments | Homework<br>Quiz<br>Final Exam |

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------|--------------------------|-----------------------------------|---------------------|--------------------|
| | are adequately safeguarded | | | |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | Communicate effectively and collaborate with peers on IT Audit and Control topics. | V1 | • Assignments<br>• Oral Presentations | • Reports<br>• Presentations<br>• Class Discussions |
| 3.2 | | | | |
| ... | | | | |

## C. Course Content

| No | List of Topics | Contact Hours |
|----|----------------|---------------|
| 1. | IT environment and controls | 3 |
| 2. | The Legal Environment and Its Impact on Information Technology | 3 |
| 3 | Audit and Review: Their role in Information Technology | 3 |
| 4 | Audit Process in an Information Technology environment | 3 |
| 5 | Auditing IT using computer-assisted tools | 3 |
| 6 | Managing and IT audit | 3 |
| 7 | IT Auditing trends | 3 |
| 8 | Auditing IT planning and the IT organization | 3 |
| 9 | Strategy and Standards and Risk Management | 3 |
| 10 | Process and Quality Management and Financial Management | 3 |
| 11 | Application controls and maintenance | 3 |
| | Total | 33 |

## D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|-------------------------|--------------------------------|--------------------------------------|
| 1. | Homework | Weak 2 till Weak 9 | 15% |
| 2. | Report, presentation, and Class discussions | Weak 10 | 15% |
| 3. | Midterm exam | Weak 6 | 20% |
| 4. | Final Exam | Weak 12 | 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 | Information Technology Control and Audit, Fourth Edition Published: July 18, 2012 by Auerbach Publications - 776 Pages, ISBN: 978-1- 4398-9320-3 Author(s): Sandra Senft, Frederick Gallegos, California State Polytechnic University, Pomona, USA; Aleksandra Davis, Glendora, California, USA |
| Supportive References | None |
| Electronic Materials | • Access to the Saudi Digital Library (SDL). <br> • Using the learning management system of the university – Rafid System (https://lms.bu.edu.sa/). <br> IEEE/ACM Transactions on Networking <br> https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=90 |
| Other Learning Materials | None |

### 2. Required Facilities and equipment

| Items | Resources |
|---|---|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | • A classroom or lecture hall with whiteboard for 25 students. |
| Technology equipment (projector, smart board, software) | |
| Other equipment (depending on the nature of the specialty) | |

## F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|---|---|
| Effectiveness of teaching | • Students <br> • Peer Reviewer <br> • Program Leaders | • Survey (indirect) <br> • Peer review (direct) <br> Class visit (direct |
| Effectiveness of students assessment | • Students <br> • Exam Evaluation Committee <br> • Course Coordinator | • Survey (indirect) <br> • Exam Review (direct) <br> review of course file (direct) |
| Quality of learning resources | Faculty <br> Students | • Survey (indirect) |

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|---|---|
| The extent to which CLOs have been achieved | • Faculty<br>• Program Leaders or Course Coordinator | • Exams (direct)<br>Exit Exams (direct |
| Other | | |

**Assessor**  (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
**Assessment Methods** (Direct, Indirect)

## G. Specification Approval Data

| COUNCIL /COMMITTEE | |
|---|---|
| REFERENCE NO. | |
| DATE | |