



# Course Specification

## (Bachelor)

Course Title: Financial Technology Risk Management

Course Code: APFT2514

Program: Diploma in Fintech

Department:

College: The applied College

Institution: Umm Al-Qura University

Version: First

Last Revision Date: 8 April 2025



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## A. General information about the course:

### 1. Course Identification

|   |  |                                  |  |                                   |                                 |
|---|--|----------------------------------|--|-----------------------------------|---------------------------------|
| <b>1. Credit hours: ( 3 )</b>   |  |                                  |  |                                   |                                 |
| 3   |  |                                  |  |                                   |                                 |
| <b>2. Course type</b>   |  |                                  |  |                                   |                                 |
| A.  | <input type="checkbox"/> University          | <input type="checkbox"/> College | <input checked="" type="checkbox"/> Department | <input type="checkbox"/> Track    | <input type="checkbox"/> Others |
| B.  | <input checked="" type="checkbox"/> Required |                                  |  | <input type="checkbox"/> Elective |                                 |
| <b>3. Level/year at which this course is offered:(3/3)</b>  |  |                                  |  |                                   |                                 |
| <b>4. Course General Description:</b>   |  |                                  |  |                                   |                                 |
| <p>This course introduces students to the evolving landscape of risk management within financial technology. Students will explore various types of risks associated with digital finance including cyber, operational, strategic, and regulatory risks. The course includes frameworks for enterprise risk management (ERM), digital security practices, scenario analysis, and compliance strategies. Using case studies and simulations, students will evaluate real-world FinTech risk incidents and build plans to identify, assess, and respond to risks effectively.</p> |  |                                  |  |                                   |                                 |
| <b>5. Pre-requirements for this course (if any):</b>  |  |                                  |  |                                   |                                 |
| APFT1506  |  |                                  |  |                                   |                                 |
| <b>6. Co-requisites for this course (if any):</b>   |  |                                  |  |                                   |                                 |
| None  |  |                                  |  |                                   |                                 |
| <b>7. Course Main Objective(s):</b>   |  |                                  |  |                                   |                                 |
| <p>Upon completion of the course, students will be able to:</p> <ol style="list-style-type: none"> <li>1. Identify core risk categories relevant to the FinTech sector.</li> <li>2. Understand tools and frameworks for assessing and managing FinTech risks.</li> <li>3. Examine how regulatory and compliance environments influence risk strategy.</li> <li>4. Apply risk management strategies in digital financial contexts.</li> <li>5. Evaluate case studies to propose improvements to risk governance in FinTech.</li> </ol>   |  |                                  |  |                                   |                                 |

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

| No | Mode of Instruction  | Contact Hours | Percentage |
|----|--|---------------|------------|
| 1  | Traditional classroom  | 45            | 100%       |
| 2  | E-learning   |               |            |
| 3  | Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> </ul> |               |            |





| No | Mode of Instruction | Contact Hours | Percentage |
|----|---------------------|---------------|------------|
|    | • E-learning        |               |            |
| 4  | Distance learning   |               |            |

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

| No    | Activity          | Contact Hours |
|-------|-------------------|---------------|
| 1.    | Lectures          | 45            |
| 2.    | Laboratory/Studio |               |
| 3.    | Field             | 0             |
| 4.    | Tutorial          | 0             |
| 5.    | Others (specify)  | 0             |
| Total |                   | 45            |

### 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  | Recognize key risks affecting financial technologies and platforms.              | K1                                    | Interactive lectures, visual aids, and guided discussions.   | Exams, Participation, Group Project |
| 1.2  | Describe frameworks and compliance models used in FinTech risk management.       | K2                                    | Case-based teaching and instructor-led concept breakdowns.   | Exams, Participation, Group Project |
| 1.3  | Understand legal and ethical responsibilities in digital financial risk contexts | K3                                    | Lectures, Seminars and analysis of current regulatory cases. | Exams, Participation, Group Project |
| 2.0  | Skills   |                                       |  |                                     |





| Code | Course Learning Outcomes   | Code of PLOs aligned with the program | Teaching Strategies     | Assessment Methods                  |
|------|--|---------------------------------------|-------------------------|-------------------------------------|
| 2.1  | Apply risk analysis and mitigation techniques using real-world tools               | S1                                    | Lectures, using tools   | Exams, Participation, Group Project |
| 2.2  | Evaluate compliance strategies and security architectures in FinTech.              | S2                                    | Lectures, Assignments,  | Exams, Participation, Group Project |
| 3.0  | Values, autonomy, and responsibility   |                                       |                         |                                     |
| 3.1  | . Practice accountability in risk reporting and risk-based decisions.              | V1                                    | Discussion, Assignments | Group Discussions, Group Project    |
| 3.2  | Collaborate in teams to create solutions for financial technology risk challenges. | V2                                    | Discussion, Assignments | Group Discussions, Group Project    |

### C. Course Content

| No | List of Topics  | Contact Hours |
|----|---|---------------|
| 1  | Overview of Financial Technology Risk Management              | 3             |
| 2  | Categories of Risk: Cyber, Operational, Market, Credit, Legal | 6             |
| 3  | Digital Risk Identification and Assessment Methods            | 3             |
| 4  | Technology Risks in FinTech Systems and APIs                  | 6             |
| 5  | midterm exam  | 3             |
| 6  | Cybersecurity Threats and Protection Mechanisms               | 6             |
| 7  | Regulatory Compliance and Anti-Money Laundering               | 3             |
| 8  | Enterprise Risk Management in Digital Finance                 | 3             |
| 9  | Scenario Analysis and Stress Testing in FinTech               | 6             |
| 10 | Blockchain Risk Considerations and Smart Contract Failures    | 3             |
| 11 | Designing a Risk Management Strategy                          | 3             |



|       |    |
|-------|----|
| Total | 45 |
|-------|----|

#### D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|-------------------------|--------------------------------|--------------------------------------|
| 1. | Midterm exam            | 6                              | 25%                                  |
| 2. | Group Project           | 12                             | 20%                                  |
| 3. | Individual Homework     | 6                              | 5%                                   |
| 4. | Participation           | Ongoing                        | 5%                                   |
| 5. | Final Exam              | TBD                            | 45%                                  |

\*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     | <i>Chorafas, D. N. (2011). Risk Management Technology in Financial Services: Risk Control, Stress Testing, Models, and IT Systems. Elsevier</i>   |
| Supportive References    | - Jorion, P. (2007). Financial Risk Manager Handbook. Wiley.<br>- Hull, J. C. (2015). Risk Management and Financial Institutions. Wiley.  |
| Electronic Materials     | - Financial Stability Board (FSB) publications on FinTech<br>- Basel III documents and risk frameworks<br>- World Economic Forum: FinTech Cybersecurity and Risk reports  |
| Other Learning Materials | IBM OpenPages (demo) or RiskWatch – for risk assessment simulation.<br>World Economic Forum FinTech Cyber Risk Framework – for policy mapping exercises.<br>Excel Monte Carlo simulation templates – for stress testing.<br>for Example:<br>Students perform scenario-based risk simulations using Excel or Power BI, visualizing risk scores over time |

##### 2. Required Facilities and equipment

| Items  | Resources                          |
|--|------------------------------------|
| facilities<br>(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | Classrooms                         |
| Technology equipment   | Projector – Smart board – Computer |





| Items  | Resources |
|--|-----------|
| (projector, smart board, software)                                   |           |
| <b>Other equipment</b><br>(depending on the nature of the specialty) |           |

#### F. Assessment of Course Quality

| Assessment Areas/Issues                     | Assessor           | Assessment Methods |
|---|--------------------|--------------------|
| Effectiveness of teaching                   | Students - Faculty | Indirect           |
| Effectiveness of Students assessment        | Faculty            | Indirect           |
| Quality of learning resources               | Students - Faculty | Indirect           |
| The extent to which CLOs have been achieved | Faculty            | Direct             |
| Other                                       |                    |                    |

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

**Assessment Methods** (Direct, Indirect)

#### G. Specification Approval

|                           |                                |
|---------------------------|--------------------------------|
| <b>COUNCIL /COMMITTEE</b> | Umm Al-Qura University Council |
| <b>REFERENCE NO.</b>      | 851281214463/194460            |
| <b>DATE</b>               | 1447/01/20                     |

