

IS4835: INFORMATION MANAGEMENT FOR FINANCIAL SERVICES

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Information Management for Financial Services

Subject Code

IS - Information Systems

Course Number

4835

Academic Unit

Information Systems (IS)

College/School

College of Business (CB)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course aims to: Introduce the impact and use of Information Technology in banking and financial markets; Equip students with knowledge about the leading Information Technology applications in financial services companies; Familiarize students with financial automation and the continued impact of information systems on the financial services industry; Equip students with the programming abilities to create and improve; support models in spreadsheet applications.

Course Intended Learning Outcomes (CILOs)

| CILOs | | Weighting (if app.) | DEC-A1 | DEC-A2 | DEC-A3 |
|-------|---|---------------------|--------|--------|--------|
| 1 | Describe the concepts of information systems in the financial service industry. | 30 | | | |
| 2 | Describe the components of financial information systems, and explain how financial information systems contribute to efficient transaction processing. | 30 | | | |
| 3 | Design and apply computer-based financial models to develop innovative solutions for business and financial problems. | 10 | x | x | x |
| 4 | Evaluate how financial information systems improve the effectiveness of management in the financial service industry. | 30 | x | x | |

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

| TLAs | Brief Description | CILO No. | Hours/week (if applicable) |
|------|-------------------|---|------------------------------------|
| 1 | TLA1:Lecture | Concepts and applications of information systems for financial services industry are explained by instructor using real life examples, together with in-class discussions and activities by students. | 1, 2, 3, 4 Seminar:3 Hours/Week |

| | | | | |
|---|--------------------|---|------------|--|
| 2 | TLA2:Laboratory | Demonstrations by instructor and hands-on exercises by students on solving problems in financial services industry using Microsoft Excel and VBA. | 1, 2, 3, 4 | |
| 3 | TLA3:Group Project | Students investigate a real life application of information systems in financial services industry. | 1, 2, 3, 4 | |

Assessment Tasks / Activities (ATs)

| ATs | CILO No. | Weighting (%) | Remarks (e.g. Parameter for GenAI use) |
|---|------------|---------------|--|
| 1 AT1:Continuous Assessment Students are encouraged to discuss and reflect on the materials covered in the lecture and attempt the laboratory exercises. | 1, 2, 3, 4 | 10 | |
| 2 AT2:Group Project A group project, which includes macro/VBA, written report and oral presentation, will be assigned to students to investigate a real-life application of financial information systems and apply the concepts learned in the course. | 1, 2, 3, 4 | 40 | |

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Assessment Rubrics (AR)**Assessment Task**

AT1:Continuous Assessment

Criterion

Ability to explain the concepts of information management in the financial services industry and creatively apply them to a wide variety of business applications.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT1:Continuous Assessment

Criterion

Ability to recognize and understand the components of financial information and identify how information management for financial services industry can contribute to managerial effectiveness and transaction processing efficiency in a wide variety of business applications.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT1:Continuous Assessment

Criterion

Capability to creatively design and apply proper computer-based financial models to develop innovative and effective solutions for business problems.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT1:Continuous Assessment

Criterion

Capability to innovatively analyze how financial information management contributes to managerial effectiveness of financial services industry.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT2:Group Project

Criterion

Ability to explain the concepts of information management in the financial services industry and creatively apply them to a wide variety of business applications.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT2:Group Project

Criterion

Ability to recognize and understand the components of financial information and identify how information management for financial services industry can contribute to managerial effectiveness and transaction processing efficiency in a wide variety of business applications.

Excellent (A+, A, A-)

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Assessment Task

AT2:Group Project

Criterion

Capability to creatively design and apply proper computer-based financial models to develop innovative and effective solutions for business problems.

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Assessment Task

AT2:Group Project

Criterion

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Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT3:Final Examination

Criterion

Ability to explain the concepts of information management in the financial services industry and creatively apply them to a wide variety of business applications.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT3:Final Examination

Criterion

Ability to recognize and understand the components of financial information and identify how information management for financial services industry can contribute to managerial effectiveness and transaction processing efficiency in a wide variety of business applications.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

AT3:Final Examination

Criterion

Capability to innovatively analyze how financial information management contributes to managerial effectiveness of financial services industry.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Introduction and Overview

What are the ROLES of INFORMATION MANAGEMENT in the FINANCIAL SERVICES INDUSTRY?

How do Information Systems IMPACT and IMPROVE the Financial Services Industry?

Information Technology in Banking and Payment Processing Systems

What are FINANCIAL TRANSACTIONS PROCESSING SYSTEMS (TPS), and why are they used?

What technology is used to PROCESS PAYMENTS and TRANSACTIONS?

Information Technology in the Financial Markets

What kind of Information Technology is used in PRIMARY and SECONDARY MARKETS?

What are the STANDARDS and PROTOCOLS for FINANCIAL MESSAGING?

What EFFECTS do ELECTRONIC MARKETS have on exchanges and traders?

Financial Markets Technological Infrastructure: Front-Office and Back-Office Systems

How do TRADING ROOMS operate?

What is the role of CLEARANCE and SETTLEMENT SYSTEMS?

Application of Modelling in Financial Services

What is FINANCIAL MODELLING?

How can tasks be AUTOMATED through MICROSOFT EXCEL MACRO and VBA?

How FINANCIAL MODELS are via MICROSOFT EXCEL MACRO and VBA?

Reading List**Compulsory Readings**

| Title | |
|-------|---|
| 1 | Freedman, Roy S., Introduction to Financial Technology, Academic Press, 2006. ISBN: 0123704782. |

Additional Readings

| Title | |
|-------|--|
| 1 | Duran, Randall E., Financial services technology: processes, architecture, and solutions, Cengage Learning, 2013. ISBN: 9814416126. |
| 2 | Keyes, Jessica, Financial Services Information Systems, 2nd edition, Auerbach Pub, 2000. ISBN: 0849398347. |
| 3 | Klanna, Ayesha, Straight Through Processing for Financial Services: the Complete Guide, Academic Press, 2008. ISBN: 9780124664708. |
| 4 | Williams, R "Tee" , An Introduction to Trading in the Financial Markets - Technology: Systems, Data and Networks, Academic Press, 2011. ISBN: 9780123748409. |