Title (Units): **COMP7370 Information Processing in Financial Services (3,3,0)**

Course Aims: To provide students with an in-depth understanding on IT application in financial industry. Students will gain concepts about the operations in financial sector, as well as the technologies adopted in this field. Practical element will also be included to allow students to experience the use and development of technology to support the operations and decision making of financial processes.

Prerequisite: Postgraduate Student Standing

Course Intended Learning Outcomes (CILOs):
Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Explain the basic financial concepts
2	Justify the technologies used in financial sector
3	Reflect the skills to develop financial applications
	Professional Skill
4	Evaluate the functions of selected financial software
5	Implement an application to support financial operations

Calendar Description: This course provides an in-depth knowledge of technology applications in financial industry. After completing the course, students will understand the financial operations and the impacts of information technology to the financial sector. Students will also practice the use of selected financial software and learn how to develop an application to support financial processes.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1-3	Students will attend lectures for the financial concepts. They will also get the knowledge about the current applications in financial industry, and the development skills to implement financial software.
4	Students will practice selected financial software via laboratory sessions.
5	Students will work on a project to apply the development skills for financial application implementation.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous assessment	40%	1-5	Continuous assessments are designed to measure how well the students have learned the knowledge of technology applications in financial industry and the ability to manipulate the functions of current financial software. A project is designed to evaluate students' capability to develop a financial application.
2	Examination	60%	1-3,5	Final examination questions are designed to see how far students have achieved their intended learning outcomes.

Assessment Rubrics:

Excellent (A)	• Achieves all five CILOs, demonstrating a good mastery of both the theoretical and practical aspects of the knowledge and skills associated with financial information system development and administration

	• Able to develop and present sound arguments and correct solutions to problems in financial information system development and administration, accompanied by in-depth analysis and insight • Demonstrates a thorough understanding and solid knowledge of financial information system development and administration • Able to draw on a variety of techniques and relevant knowledge and appropriately apply them to new situations and problems of implementation and practice of financial information systems
Good (B)	• Achieves all five CILOs, demonstrating a good understanding of financial information system development and administration • Able to develop solutions to problems in financial information system development and administration, accompanied by adequate explanations • Demonstrates a competent level of knowledge of financial information system development and administration • Able to make use of appropriate techniques and knowledge and apply them to situations and problems of implementation and practice of financial information systems
Satisfactory (C)	• Achieves most of the five CILOs, demonstrating a basic level of understanding of financial information system development and administration • Able to provide acceptable solutions to problems in financial information system development and administration • Demonstrates an adequate level of knowledge of financial information system development and administration • Able to make use of some techniques and knowledge and apply them to familiar situations of implementation and practice of financial information systems
Fail (F)	• Achieves less than two of the five CILOs, with little understanding of financial information system development and administration • Unable to provide solutions to simple problems in financial information system development and administration • Knowledge of concepts in the financial information system development and administration falling below the basic minimum level • Unable to apply techniques and knowledge to situations or problems of implementation and practice of financial information systems

Course Content and CILOs Mapping:

Content		**CILO No.**
I	Introduction to Financial Industry	1-5
II	Technologies Adopted in Financial Industry	1,2,4
III	Development of Financial Applications	1,3,5

References:

- Randall E. Duran, Financial Services Technology: Processes, Architecture, and Solutions, Cengage Learning, 2013.
- Roy S. Freedman. Introduction to Financial Technology, Academic Press, 2006.
- Ronald W. Melicher, Edgar A. Norton. Introduction to Finance: Markets, Investments, and Financial Management, Wiley, 2013.
- Chandan Sengupta. Financial Analysis and Modeling Using Excel and VBA, John Wiley & Sons, 2010.
- Simon Benninga. Principles of Finance with Excel: Includes CD, Oxford University Press, (2nd Edition), 2010.
- Michael Rees. Financial Modelling in Practice: A Concise Guide for Intermediate and Advanced Level, John Wiley & Sons, 2008.

Course Content:

Topic

I. Introduction to Financial Industry
   A. Types of financial sector, e.g. banking, insurance, and capital market
   B. Financial concepts
      - Deposit taking and lending
      - Cheque processing
      - Remittance
      - International trade
      - Credit card processing
      - E-Banking
      - Trading and surveillance

II. Technologies Adopted in Financial Industry
   A. Current financial information systems, such as
      - Financial electronic communication networks
      - Payment processing systems
      - Clearing and settlement systems
      - Financial decision support systems
      - Front office and back office systems

III. Development of Financial Applications
   A. Database Design
   B. Prototyping
   C. Data manipulation