

MITB

**Master of IT in Business
(Financial Services)**



Transform Yourself
Transform Your Organisation
The SMU MITB (FS)

CONTENTS

Dean's Message	1
Programme Overview	2
Board of Advisors	3
Programme Structure	4
Course Description	6
Application, Scholarships & Awards	10
Faculty members	15



SMU

SINGAPORE MANAGEMENT
UNIVERSITY

10TH ANNIVERSARY | 2000-2010

SMU

DEAN'S MESSAGE



The Singapore Management University (SMU) is proud to be the first university in Asia, and perhaps in the entire world, to offer a professional Master degree programme tailored to groom professionals to assume Technology and Operations leadership positions in the banking sector. We are fully committed to making this programme a valuable experience for each student, and to being a highly valued educational partner for the global financial services industry.

Across all segments of the global banking industry, the relationship between “the business” and the technology that enables it is so important that most major banks have been unifying their various Technology groups and Operations groups under a common senior executive. This head of Technology and Operations is responsible for a significant share of the bank’s employment, operating costs, capital investment and overall business performance. The Technology and Operations group is also the enabling force for implementing change initiatives or organisational transformations required for improving the bank’s competitive capabilities.

Senior professionals with responsibility for the bank’s IT capability and process transformation must understand how products and information flow throughout the enterprise and across the global financial system. They must understand end-to-end flows across customer interactions, the front office, the middle office and the back office in terms of processes and data, and also in terms of enabling software applications.

These professionals need a framework to understand current and new requirements for banking specific IT applications. In addition, they need to know how to compare and evaluate alternative technology and transformation solutions, and make related architectural trade-offs based on both business needs and technology considerations.

In order to manage and lead technology enabled change efforts, they must also have the capability to prepare and defend a business case and decide strategies for outsourcing and setting up of global hubs. They also need the people skills to manage projects that include cross-functional teams within the bank, as well as external vendors.

The SMU Master of IT in Business (Financial Services) educates you to handle these types of challenges and responsibilities. The programme is co-designed and co-delivered with leading global and regional financial services organisations and with the supporting technology provider community.

Our strong collaboration with the industry ensures that the curriculum stays relevant and responsive to emerging trends, and that our students are well connected with potential employers.

Yours sincerely

A handwritten signature in black ink that reads "Steven Miller". The signature is fluid and cursive, with a large initial 'S'.

Practice Professor Steven MILLER
Dean, School of Information Systems

PROGRAMME OVERVIEW

The Master of IT in Business (Financial Services) Programme is a sector focused degree where students are trained in the processes, operations, technology solutions and related innovation strategies of banking and financial services. It was designed in close collaboration with experts from the financial services Industry. Over time, we have consulted more than 60 experts from the industry, including end user companies, consultancy firms, solution providers, government agencies and academia.

The rationale for concentrating our master degree programme in the financial services sector is as follows:

- Financial services' industry is a large, strategically important, and rapidly growing sector in Singapore as well as in Asia.
- Significant numbers of local, regional and international banks and financial institutions continue to locate major technology and operations groups and hubs here.
- SMU is well known and highly respected by companies in the Financial Services industry.
- The SMU School of Information Systems (SIS) already has strong working relationships with all of the Technology & Operations executives in all of the Singapore based banks, and in most of the international banks and financial services firms based here.
- Banks and other Financial Service institutions spend more money on IT than **any** other sector of the economy, with the exception of the government.

Our students are trained in essential business methods and management concepts required for assuming senior levels of responsibility in banking related technology and operations. The MITB (Financial Services) Programme also provides the necessary foundation for understanding and managing technology and operations projects and functions across all segments of banking, namely corporate, investment, private and retail segments.

The solid foundation which our students establish over their course of study is built with the help of the Unified Banking Process Framework (UBPF). The UBPF was developed jointly by the SMU-School of Information Systems (SIS) and banking and technology experts from the industry. It provides a systematic way of understanding and analysing linkages across banking products, enabling processes, technology solutions and management supervision, and is at the heart of our curriculum. Our courses were initially designed, and subsequently redesigned to take full advantage of it.

Technology and Operations Surround All Banking Business Functions



We are vigilant with the relevance and applicability of our courses. Key learning outcomes for the Programme are clearly defined and used as a reference. We constantly review and fine tune our courses based on feedback from students, our Board of Advisors and industry veterans. To this end, three new banking technology courses are in the pipeline, and will be launched in the near future. These will provide our students with even more elective options.

Students are also provided with numerous opportunities to interact with the industry. They are intimately engaged with organisations through the Capstone Projects which they undertake with industry sponsors. They are also able to meet up close, industry experts who share their views and perspectives on a variety of topics, ranging from the operation of risk management groups in banks, risk management concepts, IT governance, core banking architecture, IT solutions for private banking, the global SWIFT network, straight-through processing, banking processes improvement case studies, process benchmarking and performance measurement, six sigma in banks, and large-scale business transformation of an entire banking enterprise. More than thirty of such Industry Seminars have been conducted to-date and students can certainly look forward to more.

The MITB (Financial Services) Programme began in 2007 with its inaugural batch of part-time students. In 2008, the full-time option was launched, allowing students the choice of completing the Programme intensively in one year. The intermixing of the part-time working professional students with the full-time professional students has provided a host of educational advantages for both cohorts.

The MITB (Financial Services) Programme pushes new ground within the context of the SMU-Banking Industry Technology & Operations Initiative. As the premier Programme of this nature in Asia and the world, it promises and delivers relevant and exciting courses for professionals who aspire to be leaders in their fields of work; leaders who are best positioned to marry the powers of technology and their organisation's operational capability, in order to grasp and maximise opportunities brought on by the constant changes in the banking industry.

BOARD OF ADVISORS



Mr Andrew BUTCHER
Managing Director,
Regional Head of Operations and
Technology, Citi Asia Pacific

Mr Butcher is responsible for Citi's operations, technology and shared services in the region, supporting all of Citi's businesses. Prior to his current appointment in June 2008, Mr. Butcher was Head of Operations and Technology for Citi's Institutional Clients Group in Asia Pacific. Mr Butcher was formerly Director, Business Planning and Administration in 1997, Chief Administrative Officer in 1999 and Managing Director in 2000, of Salomon Brothers, responsible for regional management of all Salomon Smith Barney Asia Pacific infrastructures, including Finance, Operations, Technology, Human Resources, Corporate Services and Public Affairs.



Ian Rae
Chief Information Officer
Global Banking & Markets
Technology, Asia Pacific
The Royal Bank of Scotland

Ian Rae is the Chief Information Officer for RBS Global Banking and Markets in Asia Pacific and is responsible for delivering IT services and solutions to the financial markets businesses in the region. He has worked in technology within financial services for 29 years of which the last 14 years have been spent in financial markets organisations at UBS, Nat West Markets, Bankers Trust, ING, ABN AMRO and now RBS. His experience has covered a wide range of technology activities ranging from manning a mainframe data centre in the early part of his career, managing network and infrastructure projects, through to large scale business change programmes.



Mr David GLEDHILL
Managing Director & Head, Group
Technology & Operations, DBS Bank

Mr Gledhill joined DBS Bank in August 2008 as the Managing Director and Head of Group Technology & Operations. Mr Gledhill is an industry veteran with 25 years of experience and has spent the bulk of his career in Asia. He held progressively senior positions with regional responsibilities in JP Morgan where he was the Head of Investment Bank Operations, Asia.



Mr SHEE Tse Koon
Chief Information Officer, Singapore,
Standard Chartered Bank

In his role as CIO of SCB in Singapore, Mr Shee is responsible for the Bank's technology and operations in the country and oversees a team of more than 500 staff. He is a member of the SCB Singapore Management Committee and his focus is in developing a technology and operations strategy and in driving the delivery of services in support of the Bank's business agenda. In his 14 years with SCB, Mr Shee has assumed a wide range of roles across Sales and Operations. He was also instrumental in the establishment of the Global Shared Service Centres in Chennai and Kuala Lumpur.



Mr Venky KRISHNAKUMAR
Senior Advisor,
Oracle Financial Services

Mr Krishnakumar was the Chief Operating Officer and Chief Financial Officer for Citibank's Global Consumer Bank, Asia Pacific region. He retired from his position in 2005 after 31 years of service with Citigroup. His job responsibilities covered the Groups Operation and Technology, Financial and Treasury Management across Asia and included a global role at managing the transition of Citi's work to low cost centers. After Citi, he has worked with McKinsey & Company as a Senior Advisor in their Business Technology practice and served as Senior Advisor to Barclays Bank PLC. He rejoined McKinsey & Company as a Senior Advisor in July 2008.



Mrs TENG Soon Lang
Executive Vice President,
OCBC Bank Group
Head, Group Quality & Service
Excellence Division

Mrs Teng was appointed Executive Vice President and Head of Group Quality and Process Innovation in January 2003. In September 2007, she took on the additional responsibility for Group Quality & Service Excellence. She joined OCBC in 1996 as the Group Chief Information Officer. Mrs Teng holds a Bachelor of Accounting (Hons) and a Master of Science (Computer and Information Sciences) from National University of Singapore as well as a Post Graduate Qualification from the Institute of Cost and Management Accountants, UK.

PROGRAMME STRUCTURE

The Master of IT in Business (Financial Services) is an intensive programme with 2 options for completion: Full-time and Part-time. Each year, there is only 1 intake and the programme usually begins in August. Candidates are to complete 11 courses plus 1 capstone project equivalent to 2 course units. Classes will be conducted on weekday evenings and/or Saturdays. In addition, a weekday evening workshop will be conducted once a month where industry experts share their insights.

PROGRAMME CURRICULUM

A. Banking Processes, IT & Architecture

(A.1 is compulsory; select 3 other courses)

- A.1 Banking Products & Processes
- A.2 Retail Banking Technology: Processes, IT & Architecture
- A.3 Corporate & Institutional Banking Technology: Processes, IT & Architecture
- A.4 Financial Markets Technology: Processes, IT & Architecture(*)
- A.5 Lifecycle Implementation of Banking Products(*)
- A.6 FS Operational Risk: Foundation & Framework
- A.7 FS Operational Risk: Data, Information, System & Architecture(*)

(*) new courses to be offered

C. IT and Project Management – 4 courses

- C.1 IT Governance & Innovation Management
- C.2 Spreadsheet Modelling for Technology & Operations Decisions
- C.3 IT Project & Vendor Management
- C.4 Global Sourcing of Technology & Processes

D. General Management – 3 courses

- D.1 Accounting for Technology & Operations Managers
- D.2 Strategy & Organisation
- D.3 Finance for Technology & Operations Managers

E. Capstone Project – equivalent to 2 courses

E.1 Project

- Project definition, development and critique workshops
- Industry expert seminars and company site visits

E.2 Project Delivery

Exemptions for courses D.1, D.2 and D.3 are granted on a case-by-case basis. A maximum of 3 exemptions will be granted. If exemptions are granted, candidates are required to replace the exempted courses with alternative SMU-SIS courses. Request for exemptions must be submitted to the Programme Director for approval upon admittance to the programme. No exemptions will be granted once the programme commences.

PROGRAMME COMPLETION MODEL

	Period	Number of Courses per term	Maximum candidature period
Full-time	12 months	4	2 years
Part-time	12 to 24 months	2 to 4	4 years

PROGRAMME EXIT MODEL

We allow students to re-sit for a failed exam. They will not be able to continue the programme if they do not pass on the second attempt. Students need to maintain an average GPA of 2.5 in order to remain in the programme. Upon successful completion of the programme, students will be conferred the Master of IT in Business (Financial Services) degree by the Singapore Management University.

In an increasingly complex and dynamic financial industry, there is great demand for leaders who can effectively link technologies and business processes with business performance. I am pleased that we finally have a holistic and practical programme that is specially tailored to prepare talented operations and technology professionals to take advantage of these opportunities.


Mrs TENG Soon Lang

*Executive Vice President, OCBC Bank Group,
Head, Group Quality & Service Excellence Division*

There is an ever increasing demand for Technology and Operational leaders who can act as true strategic partners in shaping the competitive edge of financial organizations. I am privileged to be associated with this unique Masters Programme at SMU SIS aimed at building the skills required to be effective in these critical roles.

David GLEDHILL

*Managing Director and
Head Group Technology and Operations
DBS Bank*



Organisations that have participated in our industry seminar series, and as guest speakers in our courses, include banks and other financial services industry related firms listed below. Each year, leaders and experts from similar organisations will continue to address our students.

- Barclays Bank PLC
- Citibank Singapore Limited
- DBS Bank
- Ernst & Young
- FRA Blackstone
- get2volume
- i-flex Solutions Ltd
- Merrill Lynch Global Services Pte Ltd
- Monetary Authority of Singapore
- OCBC Bank
- SAS Institute Pte Ltd
- Shinsei Bank, Limited
- Singapore Exchange
- Standard Chartered Bank
- SWIFT
- Tata Consultancy Services
- The Asian Banker
- The Association of Banks in Singapore
- UOB Bank

COURSE DESCRIPTION

A. BANKING PROCESSES, IT & ARCHITECTURE

A.1 BANKING PRODUCTS & PROCESSES

Technology and operations professionals need to understand banking products, control requirements, customers' and management's needs in order to design the necessary processes and systems that will lead to superior delivery through various channels and media. Students will learn to view selected retail and wholesale banking products and services from this perspective.

Three aspects to our approach distinguish it from the more commonly found treatments of banking product overviews.

- The course defines and analyzes products in the context of our Unified Banking Process Framework. This makes it possible to link specific examples to an overarching conceptual framework, and provides a consistent approach to understanding products and processes across all segments of banking.
- The course has a strong process and data orientation. We look at a product in terms of how it flows from end-to-end through the bank and larger financial system, and in terms of data generation and data management associated with the product.
- The course emphasizes how the processes and data associated with a product relate to meeting external customers' and internal management's needs.

The course also introduces As-Is and To-Be analysis of banking processes, and provides the required foundation for the other Banking Processes, IT & Architecture series of electives.

A.2 RETAIL BANKING TECHNOLOGY: PROCESSES, IT & ARCHITECTURE

The course will cover selected retail banking solutions spanning the front to the back office.

These include core banking, branch platform and delivery channels such as ATM, internet and mobile banking. The design and flow of different types of consumer payment systems - cheque, debit, credit cards and stored value facilities will be examined. Topics such as customer analytics, security and retail banking technology trends will also be discussed. Students will gain in-depth knowledge on system and application architecture through in-class lectures, walkthroughs and demonstrations provided by vendors. This course does not involve code development and low-level implementation.

A.3 CORPORATE & INSTITUTIONAL BANKING TECHNOLOGY: PROCESSES, IT & ARCHITECTURE

This course explores corporate and institutional banking (C&IB) solutions and architecture. It begins by reviewing core principles of solution development including systems architecture and business process management. These considerations are then examined in different C&IB business contexts. Specifically, the product areas of cash management, trade finance, corporate treasury, and derivatives are covered. The later part of the course examines other types of C&IB solutions, such as customer relationship management, channels, and risk management. Emphasis is placed throughout the course, on analyzing real-world situations using case studies and gaining hands-on experience with banking systems.

A.4 FINANCIAL MARKETS TECHNOLOGY: PROCESSES, IT & ARCHITECTURE

This course reviews the technology architectures and solutions that support financial market transactions. The product lifecycle and trading flows for equities, bonds, foreign exchange, futures, and other derivatives are compared. Likewise, the function of and interactions between core trading systems – market data, order routing, position management, clearing and settlement, and risk management – are also analysed. The course will provide hands-on exercises with trading system technology. It will also explore current issues, such as the design of event-driven architectures and high-performance systems.

A.5 LIFECYCLE IMPLEMENTATION OF BANKING PRODUCTS

All banking products go through the lifecycle stages of i) product design & set up, ii) customer engagement, iii) customer order acquisition, iv) transaction fulfillment, v) maintenance, vi) reviews, and vii) product wind-down & phase out.

In the other courses in the Banking Processes, IT & Architecture series, we assume the product already exists, and we focus on the various aspects of product execution ranging from ii) customer engagement through to vi) product and customer reviews. In this course, we look at the **complete** lifecycle of a banking product, with special emphasis on the design & set up tasks that are required for product creation, as well as on the product wind-down and phase out tasks that are part of product retirement.

The nature and complexity of the processes and requirements for product creation and product retirement can be quite different, depending on the particulars of the type of product and type of customers involved. To give students an overview of this landscape, we look at selected examples across retail banking, wealth management, corporate & institutional banking, and capital markets. For these examples, we examine the processes, data and systems associated with planning, designing and setting up a new product, as well as technology and operational issues related to scaling up and transitioning to steady state execution, and to eventually winding down and retiring the product.

A.6 FS OPERATIONAL RISK: FOUNDATION & FRAMEWORK

Operational risk is risk arising from a financial institution's business functions and from the practical implementation of the management's strategy. It can be defined as the risk of loss resulting from inadequate or failed internal processes, people, systems and management or from external events. It is relatively straightforward for an organisation to set and observe specific, measurable levels of market risk and credit risk. In contrast however, it is relatively difficult to identify or assess levels of operational risk and its many sources. Historically, organisations have accepted operational risk as an unavoidable cost of doing business.

This course reviews the sources of operational risk in financial services industry and the best practices in managing the risk at source level. In addition the course enables students to develop and maintain the operational risk management framework, policies and standards with emphasis on how to devise and update a framework based on the key elements like governance, policies, processes and procedures along the what, where, when, how and who dimensions. Students will also learn to develop, implement and maintain operational risk methodologies and tools and create and sustain awareness of operational risk management thought an institution. The course will also cover the relevant legislations, regulations and codes of practice.

A.7 FS OPERATIONAL RISK: DATA, INFORMATION, SYSTEM & ARCHITECTURE

Operational Risk is inherent in all banking activities, not only in the business it conducts but also from the fact that it is a business - an employer, owning and occupying property, and holding assets, including information, belonging to itself and its clients. A blogger once remarked, without an operational risk management system, a bank is like driving blind in a blizzard of incidents that increases its potential for losses and diminishes its performance.

Today more than ever, it is vital that a bank's management has the information, tools and answers they need to fulfill their fiduciary duties. No operational risk framework is designed to eliminate risk per se but, rather, to contain it within acceptable levels as determined by senior management. It is therefore absolutely essential to ensure that a bank has sufficient information, in a timely manner, for making informed decisions about additional controls, adjustments to controls, or risk mitigation efforts.

This course examines the information, the knowledge needed in managing operational risk on a bank-wide basis. It focuses on the components of risk infrastructure needed to enable banks to systematically collect, manage and distribute real-time risk content. The course will look into the data, the models that transformed the data into information, as well as the knowledge needed to interpret and translate information into decision and action. The course will challenge students to think Operational Risk Oriented Architecture that brings together the necessary data, models, processes and solutions.

This course complements A.6 which focuses more on risk mitigation at source.

¹ Risk content ranges from price data, position/exposure information, alerts from security agency, to business continuity policies, emergency response procedures, control standards, facilities and IT assets, baselines, threats/vulnerabilities.

C. IT AND PROJECT MANAGEMENT

C.1 IT GOVERNANCE & INNOVATION MANAGEMENT

The first part of this course covers issues related to IT governance including IT portfolio and capability management and related risks. It discusses the five key questions that are central to good IT governance and introduces the students to best practices from leading organisations. The first part also explains the principles behind IT Portfolio Management. It discusses the maturity levels for IT Portfolio Management and takes the students through a step by step process of constructing an IT Portfolio.

The second part of the course covers Innovation Management. Students study different innovation models and apply them to identify new innovation opportunities. Product and Service Innovations are discussed in depth. Students will also gain an understanding of how to manage innovations in their organisations.

C.2 SPREADSHEET MODELING FOR TECHNOLOGY & OPERATIONS DECISIONS

Very often, managers need to quickly make important decisions related to managing IT investments, assets, operations and projects. Understanding how to analyze trade-offs between alternatives is difficult to do without a good model. This course focuses on using Microsoft Excel as a spreadsheet tool to build such decision models and to do business analysis. Students will be able to analyze trade-offs and understand the sensitivity impact of uncertainties and risks. The key emphasis of this course is on developing the art and intuition of modeling, more so than just learning about the long list of available models, in the context of managing IT resources and operations.

C.3 IT PROJECT & VENDOR MANAGEMENT

IT projects never go according to plan and project managers must exercise good judgment and effective management skill to ensure success. Students will learn of the many decisions and tradeoffs that project managers make daily, namely managing schedules, team dynamics, resource scheduling, quality issues, schedule delays, cost overruns, to name a few. Students will be introduced to best practices promoted by Project Management Institute (PMI) and documented in "A Guide to the Project Management Body of Knowledge" (PMBOK® Guide).

Case studies of real world IT projects, computer-based simulation games and role playing negotiation exercises will be used in class to help students understand and practice project management skills of managing conflicts, responding to unexpected project problems and negotiating a win-win contract agreements between client and vendor.

IT projects inevitably involve vendors, and increasingly IT operations and IT infrastructures are outsourced to third-party service providers. The ability to manage vendors and negotiate favorable contract terms are essential skills for project managers. Determining when to use and how to select a vendor effectively can make or break even the most carefully planned projects. Students will learn and practise activities that are essential to effective vendor management.

C.4 GLOBAL SOURCING OF TECHNOLOGY & PROCESSES

Standardising business processes, advances in information and communication technologies, and the continuous improvement of the capabilities of IT service providers around the world, among other factors, have led to an intense impetus to "strategise" IT sourcing. In this course we will investigate how enterprise IT services are (out/in) sourced in the financial services industry. We will also draw relevant examples and lessons learnt from other industries.

Students will develop an understanding of the core issues involved in a variety of sourcing strategies (out/in/co-sourcing), the industry best practices in managing IT sourcing (through case-studies and guest lectures), and the emerging governance schemes for IT sourcing. The other side of sourcing will be analysed, that is, the vendor's perspectives on managing sourcing relationships and how they deliver their promise of low-cost and high-quality services. Students will have the opportunity to practise forming sourcing decisions - writing Request for Proposals (RFPs), bidding on RFPs, designing contracts, and the like.

D. GENERAL MANAGEMENT

D.1 ACCOUNTING FOR TECHNOLOGY & OPERATIONS MANAGERS

Students are equipped with basic knowledge of accounting basics and the ability to better understand a set of financial statements. The course covers issues such as accrual versus cash systems of accounting, measurement difficulties, and timing judgment involved with assets, liabilities, revenues and expenses amongst others.

The course also aims to improve analytical skills through problem solving using accounting information such as fixed versus variable costs and the use of this distinction to conduct a Cost-Volume-Profit (CVP) Analysis. Students are also required to understand relevant costs for decisions such as make versus buy and segment analysis. The course will also introduce students to costing systems, performance measures, cost allocation, planning and performance budgets, and how these accounting tools help organisations to be more effective.

D.2 STRATEGY & ORGANISATION

This course is designed to teach strategy and the organisational changes, and leadership necessary to create competitive success. A key aspect of strategic success is execution, without which ideas remain only ideas and not vehicles for value creation. The topics of execution by way of the organisation, management and change leadership will be discussed in detail. Lectures, case studies, readings, simulations, tools and their practical use, as well as class participation will be the primary vehicle to create the appropriate learning environment. The outcome of this course will be an effective theoretical and practical understanding by the students of strategic analysis, formulation, execution, and the role and practice of leadership, management and organisation.

D.3 FINANCE FOR TECHNOLOGY & OPERATIONS MANAGERS

Students will be exposed to key financial concepts and tools commonly used by managers in making sound financial decisions. These include ratio analysis, time value of money, risk-return trade-off analysis, capital budgeting, stocks, bonds, and option pricing. In addition, the course also covers the terminology, characteristics and features of various financial instruments transacted in the financial services industry. This helps the students interact effectively with the finance professionals in the different product areas.

E. CAPSTONE PROJECT

Students must complete a Capstone Project sponsored by an industry partner as partial fulfillment of the MITB (Financial Services) programme. The project will enable the students to apply and integrate what they have learnt and give them an opportunity to delve in greater depth, into one or more of the topics covered in courses.

Students work on the projects individually, in collaboration with a sponsoring company under the supervision of an SMU appointed advisor. In cases where the project scope is large enough, 2 students may work on the project provided each student makes a distinct contribution towards the project. Each student is expected to commit at least 182 hours on the project, including meeting time with the company and SMU advisors.

Students may be expected to work on-site at the sponsoring company if necessary, to understand the business domain, problem definition and even to gain access to systems, documents and resources available at the company. Students may be paid a sum of money by the sponsoring company at the discretion of the company.

Some examples of Capstone Projects undertaken by our students include:

- A Study in Change Management
- Core Banking Platform Study
- Exploring Potential Values of Staff Performance Data in Service Excellence Quality
- Next Generation Internet Banking
- Technology and Operations Planning: A Review of Global Financial Market Systems and Processes and A Strategy for Managing Global Financial Market IT for Business Value
- Leveraging on Exploratory Data Mining Techniques for Credit Card Fraud Analysis
- An Integrated Business Intelligence Platform for Financial Institutions
- Performance Scorecard Development with Visual Business Analytics Tools for Banking
- Capacity Planning for Applications & Infrastructure in Operations
- Data Centre Capacity Modelling & Planning
- Wholesale Bank Operational Dashboarding
- Cheque Truncation Project
- Migration Core Systems & Credit Card Systems
- Net New Money Reporting
- Revenue by Vintage Analysis
- Application of Lean Production Process Improvement on Cheque Clearing Facilities in Singapore
- Business Excellence and Strategic Planning in Cheque Clearing Facilities in Singapore
- Online Sales & Merchandising Best Practice in Financial Services
- Channel Migration – Strategies to Increase Usage of Online and Mobile Banking
- Creativity and Business Innovation for Offshore/ Onshore Customers for Priority Banking
- Systematic Approach for Spreadsheet Risk Mitigation in a Business Control Unit
- Technology & Operations Risk Management

Full Time Programme							
		Term 1A	Term 1B	Term 2A	Term 2B	Term 3A	Term 3B
		Late Aug to Early Dec		Early Jan to Mid Apr		Late Apr to Early Aug	
Part Time Programme	Year 1	D.1 Accounting for Technology & Operations Managers	A.1 Banking Products & Processes	C.2 Spreadsheet Modelling for Technology & Operations Decisions	A.2 Retail Banking Technology: Processes, IT & Architecture	D.3 Finance for Technology & Operations Managers	C.3 IT Project & Vendor Management
		3 new Elective Courses may be offered in any of these terms		A.5 Lifecycle Implementation of Banking Products		A.4 Financial Markets Technology: Processes, IT & Architecture	A.7 FS Operational Risk: Data, Information, System & Architecture
	Year 2	A.6 FS Operational Risk: Foundation & Framework	D.2 Strategy & Organisation	A.3 Corporate & Institutional Banking Technology: Processes, IT & Architecture	C.1 IT Governance & Innovation Management	C.4 Global Sourcing of Technology & Processes	E.2 Project Delivery
	E.1	Project - Project definition, development & critique workshops - Industry expert seminars & company site visits					



APPLICATION, SCHOLARSHIPS & AWARDS

APPLICATION REQUIREMENTS

The Master of IT in Business (Financial Services) programme seeks applicants with the following:

- A good Bachelor's degree preferably in computer science, information systems, IT, engineering, or science.
- At least 2 years of IT and/or operations related work experience in Banking, or other segments of the financial services industry.
- Professionals with strong IT and/or operations work experience in other industries are also encouraged to apply.
- Applicants must apply with a valid GMAT score (within the last 5 years) or a registered GMAT date. Conditional acceptance may be granted to applicants with registered GMAT date. GMAT score must be submitted before matriculating into the programme. (GMAT Code: F8D-Z4-61)
- Singapore citizens, permanent residents and foreigners who are working and based in Singapore are welcome to apply.
- Student visa will not be issued for international graduates on part-time programme. Acceptance into the full-time programme does not guarantee successful application of student visa.
- Admission interviews will be conducted for short-listed candidates.

Our applicants typically come from the following backgrounds:

- Business process analysis and design
- Business process & IT outsourcing management
- Business intelligence & analytics
- Business technology consulting
- Database and reporting professionals
- Enterprise systems professionals & managers
- IT Infrastructure and data centre management
- Operations
- Risk management applied to technology and operations
- Software application development
- Software project management
- Vendor management

I am honoured to be associated with the Masters programme at SMU-SIS. With technology and operations defining winners and losers in every industry, this program should be a source of the best and the brightest in that area of interest.

Mr Venky KRISHNAKUMAR
Senior Advisor,
Oracle Financial Services

APPLICATION PROCESS

Online application can be done at:

<http://www.sis.smu.edu.sg/programme/Masters/admission.asp>

The following documents will be required to accompany the online application:

- A personal statement (soft copy)
This is a write-up that explains why you wish to enter the MITB (Financial Services) programme, in what ways you believe you are qualified, and your future career aspirations.
- Copies of relevant certificates and academic transcripts
- Copies of Passport and/or NRIC
- Two different referees are required to submit a completed referee form each to the following address:
Master of IT in Business (Financial Services)
Graduate Programmes Office
School of Information Systems
Singapore Management University
80 Stamford Road
Singapore 178902
- Application fee payment of S\$50. Payable either by:
 - Cash (in person) or
 - Cheque to be made payable to "Singapore Management University" or
 - Credit card (online)

APPLICATION DEADLINES

Applications will open from January 2010 for the August 2010 intake.

Enrolment	Application Deadline
Priority Placing	28 February 2010
Official Deadline	31 March 2010
Interviews and Short-listing	31 May 2010
Rolling Admission (upon availability of seats)	1 April 2010 to 31 July 2010



PROGRAMME FEES

The current fees for the programme are:

Fees	Amount	Comments
Application	S\$50	Non-refundable.
Registration	Singapore Citizens & Permanent Residents - S\$400 Foreigners - S\$500	Non-refundable. The fees include matriculation, orientation activities, library/computer account, insurance and other miscellaneous fees.
Tuition*	S\$40,000	GST charges included. Amount covers tuition for full 13 courses curriculum. Scholarships, merit awards and bank loans available. Tuition fees are payable in three equal instalments.

* Tuition fees are locked in once the student enters the programme. The Singapore Management University reserves the right to alter tuition fees for new incoming cohorts when required.

PAYMENT SCHEDULE

The full programme tuition fees are:

- Part time: payable over 3 instalments in the 2 years of your candidature.
- Full time: payable over 3 instalments in the 1 year of your candidature.

Part-time (2-year programme)

Instalment	Payable in	Amount
1st Payment	August 2010	\$13,500
2nd Payment	April 2011	\$13,500
3rd Payment	January 2012	\$13,000
Total		\$40,000

Full-time (1-year programme)

Instalment	Payable in	Amount
1st Payment	August 2010	\$13,500
2nd Payment	January 2011	\$13,500
3rd Payment	May 2011	\$13,000
Total		\$40,000

The rapid development of Singapore as a centre of excellence for the financial services industry, together with the emergence of operations and technology as key competitive differentiators, underlines the need here for world-class graduate education such as the SMU SIS Masters Programme. I am honoured to be associated with this programme and am confident that it will reinforce Singapore's reputation as the pre-eminent global hub for banking operations and technology.

Andrew BUTCHER

*Managing Director
Head of Operations and Technology
Asia Pacific Citi Markets and Banking*

In an industry renowned for constant change, the last couple of years have seen change of a seismic scale and events have occurred that have not been seen for at least one generation. This has led to a challenge to conventional thinking with an associated change of focus and a need for organisations and individuals to be able to adapt, survive and thrive in this changed environment.

For IT professionals working in financial services, this means an even greater need for understanding the business, the functions that support a business and the underlying technology platforms/processes. This understanding needs to be a broad one that encompasses the full business lifecycle from the initial client contact to ongoing management of risk and associated financial events. Traditionally there has been a focus on the 'next big thing' and whilst this will no doubt return, the lessons learnt recently remind us that we need to focus on the basics of our businesses and the needs that this translates into for technology ... things such as control, security, resilience, efficiency and above all clients needs. Developing talent with this in mind is crucial to the ongoing progress of technology within financial services which is subsequently of utmost importance to organisations and the industry as a whole.

Ian Rae

*Chief Information Officer
Global Banking & Markets Technology, Asia Pacific
The Royal Bank of Scotland*

As Technology becomes even more embedded and indispensable in our daily activities, its role will inevitably grow in significance, from just a business enabler previously, to become a critical business differentiator and a key foundation of innovation. This programme will uniquely position participants to ride this wave of change as it equips them with the ability to integrate business and technology. I am, therefore, very honoured to be associated with the programme.

SHEE Tse Koon

*Chief Information Officer
Standard Chartered Bank*

SCHOLARSHIPS

Finance Scholarship Programme

The SMU MITB programme is one of the approved programmes under Finance Scholarship Programme (FSP) supported by the Financial Sector Development Fund (FSDF). The Finance Scholarship Programme (FSP) administered by the Monetary Authority of Singapore was designed to groom a critical mass of specialists in targeted fields such as risk management, quantitative finance/financial engineering, finance/applied finance/financial economics and actuarial science.

Applicants to the University programme may be eligible for FSP funding support on a case-by-case basis. Shortlisted candidates will be expected to participate in interviews held in Singapore. Preference will be given to candidates who are Singapore citizens or permanent residents. Interested applicants should submit their applications to the FSDF Secretariat directly, at least nine months before the commencement of the postgraduate programme. Please contact the FSF Secretariat at fsdf@mas.gov.sg for more details. Application forms available at www.mas.gov.sg

The Finance Scholarship Programme comprises 2 components:

1. Company-Sponsored Track
 - The FSDF will co-fund with Singapore-based financial institutions to send their promising financial sector professionals and/or fresh graduates for postgraduate study in this programme.
 - Application to be submitted at least two months before commencement of the programme.
 - Applicant must be accepted into the programme.
2. Individual Track
 - The FSDF will co-fund with outstanding individuals to pursue postgraduate study in this programme.
 - Applications open twice a year, from November to January (deadline: 31 January) for the first exercise; and from May to July (deadline: 31 July) for the second exercise.
 - Applicant must have applied to the programme.
 - Late applications may be considered on a case-by-case basis but outcome of their applications would likely be available only after the commencement of the programme.

Supportable Items	Company-Sponsored	Individual
(a) Tuition, examination and other compulsory fees levied by the University	70% of qualifying expenses	70% of qualifying expenses
(b) One-time Book and Thesis Allowance	70% of qualifying expenses capped at S\$300	S\$300
(c) Absentee Payroll (only for full-time programmes) Applicable only if the sponsoring financial institution pays the scholar substantive salary during the period of study	50% of basic salary costs per month, capped at S\$50,000 per year	Not applicable

MITB Scholarship

The MITB Scholarship, offered by the MITB Programme, is aimed at encouraging outstanding full-time and part-time students to pursue the Master of IT in Business (Financial Services) programme, to achieve academic excellence in the banking products, processes, operations and technology. Up to four scholarships will be awarded every year, each between S\$5,000 – S\$10,000.

To be eligible for this Scholarship, shortlisted candidates must meet the following criteria:

- Have outstanding academic results upon application
- Demonstrate leadership potential
- Is resourceful, creative, and innovative
- Must possess qualities of a MITB Ambassador
- Must not be a recipient of other scholarship, sponsorship or award
- Special consideration may be given to students with financial needs

Tenure and Benefits of the Scholarship

- Each scholarship, valued at S\$10,000 is tenable for the duration of the scholar's studies, subject to good academic results
- The Scholarship will offer partial financial support towards annual tuition fees
- No bond is required of the scholarship recipients

SAS Scholarship

The SAS Scholarship, established by SAS Institute Pte Ltd, is aimed at encouraging outstanding full-time students in the Master of IT in Business (Financial Services) programme to achieve academic excellence in their studies, particularly in the learning of business intelligence technology and applications. Commencing Academic Year 2008-2009, 4 scholarships each valued at S\$10,000 will be awarded for 3 consecutive intakes.

To be eligible for this Scholarship, applicants must meet the following eligibility criteria:

- Full-time students of any nationality matriculated in the Master of IT in Business (Financial Services) programme
- Is resourceful, creative and innovative
- Selected student must work on the Masters programme capstone project using SAS as the software application
- Special consideration may be given to students with financial needs

Tenure and Benefits of the Scholarship

- Each scholarship, valued at S\$10,000 is tenable for the duration of the scholar's studies (up to 2 years), subject to good academic results
- The scholarship will offer partial financial support towards annual tuition fees
- No bond is required of the scholarship recipients
- The Donor and/or its designated companies may offer career opportunities to the scholar

OUTSTANDING STUDENT AWARDS

- For each graduation batch, the programme will present 2 outstanding student awards of at least S\$3,000
- Recipients will be determined purely based on merit, using the results of the first 4 terms and first 2 terms for part-time students and full-time students respectively
- Must not be a recipient of other scholarship, sponsorship or award

STUDY LOANS

Study loans are available from:

- Citibank
- Maybank
- POSB
- RHB Bank
- OCBC Bank

FACULTY MEMBERS

The programme is delivered by well qualified and experienced faculty members and industry professionals. Our faculty members have PhDs from well-known Universities around the world and have many years of outstanding pedagogical delivery methods. The industry professionals who form part of our adjunct faculty members team are experienced bankers and IT professionals who have worked a long time in the banks and banking solution providers.

Michelle CHEONG Lee Fong

- Practice Assistant Professor
School of Information Systems
*PhD, Nanyang Technological University,
Singapore-MIT Alliance, 2005*
- Director, SIS Masters and Professional Programmes
- Specialise in service delivery network design & operations

Enoch CHNG

- Adjunct Associate Professor
School of Information Systems
MSc, Massachusetts Institute of Technology
- Director of AsiaMetrics Pte Ltd
- Director of Assetia Capital Management Pte Ltd
- Former Managing Director of DBS Bank Ltd (2007 – 2008)
- Former Executive Director of the Specialist Risk Department (SRD) in the MAS (1998 – 2006)
- Former Vice President UBS Singapore, Director of UBS (Futures) Pte Ltd and Alternate Director, UBS Data Systems Pte Ltd (1988 – 1998)

Adel F. DIMIAN

- Practice Associate Professor
Lee Kong Chian School of Business
PhD, University of North Dakota, 1988
- Former technology/operation/innovation executive at 3M

Randall E. DURAN

- Adjunct Associate Professor
School of Information Systems
MSc, Massachusetts Institute of Technology
- Chief Executive Officer of Catena Technologies Pte Ltd
- Former Vice President of Enterprise Solutions, Reuters PLC (2000 – 2001)
- Former General Manager (SEA), Director of Technical Consulting (AP), Managing Consultant, Senior Manager, TIBCO Inc., Singapore, London, USA (1991 – 1999)

KAM Tin Seong

- Practice Associate Professor
School of Information Systems
PhD, University of London, 1995
- Faculty Head, SMU-SAS Enterprise Intelligence Lab
- Specialise in business analytics and GIS applications including banking

KHOO Teng Aun

- Associate Professor
School of Accountancy
*Master of Economics,
Macquarie University, 1989*
- Specialise in managerial and financial accounting, reporting and audit

Sandeep LAL

- Adjunct Associate Professor
School of Information Systems
MBA, University of Michigan
- Managing Director, Head of Consumer Banking
Internet Banking, DBS Bank
- Former Senior VP and Head of Customer Service
and Operations, PayPal (2000 – 2008)
- Former VP and Regional Head Ops & Tech and
various Operations Head, Citibank, New York, Japan
and India (1983 – 2000)

LAM Wei Choong

- Adjunct Faculty
School of Information Systems
BSc, University of Waterloo, Ontario, Canada
- Managing Principal of Veros Consulting
- Former Regional Managing Partner ASEAN/South
Asia, IBM Global Business Services,
Financial Sector Lead

LEE Wee Leong

- Practice Assistant Professor
School of Information Systems
PhD, Imperial College (London), 2002
- Specialise in applying IT solutions to supply
chain and service delivery

LEONG Thin Yin

- Practice Associate Professor
School of Information Systems
PhD, Massachusetts Institute of Technology, 1990
- Associate Dean, Strategic Planning & Initiatives
- Specialise in using business models for D4
exploration (problem discovery & diagnosis, model
design & delivery)

Joseph LIM

- Practice Associate Professor
Lee Kong Chian School of Business
PhD, New York University, 1989
- Specialise in applied financial and investment analysis

STEVEN MILLER

- Practice Professor
Dean, School of Information Systems
PhD, Carnegie Mellon University, 1983
- Lead architect, Unified Banking Process Framework

Desai NARASIMHALU

- Practice Professor
School of Information Systems
PhD, University of Hawaii, 1983
- Director, Institute of Innovation and
Entrepreneurship, SMU
- Specialise in innovation strategy and practice

NG Peng Khim

- Practice Adjunct Professor
School of Information Systems
*Post-graduate Diploma in Systems Analysis - ISS,
National University of Singapore (1987 – 1988)*
*Bachelor of Surveying – University of Melbourne
(1982 – 1985)*
- Managing Director, Head of Regional Technology
for Institutional Banking/Finance/Risk, DBS
(2009 – present)
- Former Managing Director, Head of Regional
Technology for Institutional Banking, Citigroup
(1994 – 2008)
- Former Project Manager, Singapore Housing
Development Board (HDB) Technology
(1987 – 1994)

NG Tock Soon

- Senior Lecturer
School of Information Systems
*MPhil in Computer Speech Processing,
Cambridge University, (1993 – 1994)*
- Senior Technical Solutions Manager, IBM Global
Services (2005-2007), Project Manager/IT
Architect, IBM Business Consulting Services
(2002-2004)
- Consultant, Financial Services Consulting Group
(2000-2001), IT Specialist, Banking Solutions
Group, IBM Financial Services Sector (1995-1999)

Narayan RAMASUBBU

- Assistant Professor
School of Information Systems
PhD, University of Michigan, 2005
- Specialise in globally distributed software
delivery systems

Venky SHANKARARAMAN

- Practice Associate Professor
School of Information Systems
PhD, University of Strathclyde, 1992
- Associate Dean, Education
- Specialise in enterprise integration & business
process management

Sajeev THOMAS

- Adjunct Professor
School of Information Systems
MBA, Indian Institute of Management
- Former Chief of Staff, Senior Managing Executive
Officer, Head of Retail Banking, Shinsei Bank Ltd.,
Japan (2000 – 2006)
- Former Country Treasurer & Head of Capital
Markets, Citibank, New York, Japan and India
(1975 – 2000)

SMU MASTERS. *BE ONE.*

SIS Graduate Programmes Office
School of Information Systems
Singapore Management University
80 Stamford Road Singapore 178902
Tel: +65 6828 0939 Fax: +65 6828 0468
Email: sis_masters@smu.edu.sg
www.sis.smu.edu.sg/programme/masters