

SCHOOL OF

INFORMATION SYSTEMS

UNDERGRADUATE PROSPECTUS 2015/2016

KEY PLAYER IN A SMART NATION



- SIS students are right in the middle of our nation's initiatives such as SMART Nation; Analytics for Business, Consumer and Social Insights; Cyber Security and Data Privacy; Urban Management and Sustainability; Ageing-in-Place; and Financial Services Technology
- Gain from our close ties with national agencies and industry groups (e.g. IDA and the ELiTe Programme, Singapore Computer Society and the SCS Student Chapter)

FAST-TRACK PROGRAMMES



- Pursue 2 programmes concurrently, BSc (ISM) with: SMU-Carnegie Mellon (Pittsburgh, USA) under IDA's National Infocomm Scholarship scheme; or Master of IT in Business; or Master of Applied IS

DIVERSE CAREER OPTIONS



- 98% do a second major or double degree to gain a wider breadth of knowledge and employability in diverse industries
- A growing number of SIS graduates have become successful technopreneurs

BE INDUSTRY- READY



- 100% of SIS students gain real-world experience through internships and capstone projects

BE HIGHLY SOUGHT AFTER BY EMPLOYERS



- 93% employed within 6 months of graduation[†]
- Students awarded Cum Laude or better enjoy high mean gross monthly salaries of S\$4,151[†] (7.5% increase from previous year)

[†] Source: Graduate Employment Survey 2014

HAN JUN KWANG

Assistant Vice President,
Bank of America Merrill Lynch
SMU Bachelor of Science in
Information Systems Management
with Second Major in Legal Studies, Cum Laude

SMU 15
ANNIVERSARY

15,000 different Us
and still counting...

SMU
A Different U

DEAN'S MESSAGE

Do you know that there is a School Of Information Systems in SMU (a.k.a. SIS)?

SMU SIS has been remarkably successful locally and globally. People who get to know us describe us as a “gem” and as “one of the best kept secrets in Singapore”. The big message is that “YES, SMU has proven itself as a great place to study IT and Information Systems!” And because we are SMU, we know how to **relate IT and Information Systems to people – to real-world business, management, government and social needs – exceptionally well**. That's why the educational programmes and research efforts of SMU SIS have become so successful and so highly acclaimed locally and globally.

The following pages give you a glimpse of our programme, our unique SIS culture and our capabilities that create a very special breed of students & alumni. Our students and alumni are **very much in demand by all industries** (private sector, government and social sector). Our alumni end up performing **a wide range of roles** in their organisations because of their abilities in both Information Systems and Management.

Do you know that the SIS ecosystem (our students, alumni and research projects) is deeply connected to many Singapore's strategic national initiatives?

SMU SIS plays an important role in national initiatives such as: SMART nation; Analytics for Business, Consumer & Social Insights; Cyber Security & Data Privacy; Urban Management & Sustainability; Ageing-in-Place; and Financial Services Technology. Many national agencies and leading industry players **work with us on joint projects**, and come to us for students to work as interns and full-time employees.

Prime Minister Lee Hsien Loong in his speech at the launch of the Smart Nation initiative (24 Nov 2014) remarked that bringing the current piecemeal uses of technology into a cohesive, nationwide whole will make our economy more productive, our lives better, and our society more responsive to people's needs and aspirations.

If you come to SMU SIS, you can be part of this.

Do you know how to embark on this opportunity to improve our society and change the way we live, work, learn and play?

It's simple. Become a SMU Information Systems student. Specify our BSc (Information Systems Management) as your **first choice**. Please talk to any current SIS student, any SIS alumni, or any company who employs our SIS alumni and find out about SMU Information Systems, one of the best kept secrets in Singapore.

Professor Steven Miller
Dean, School of Information Systems



BE TRANSFORMED AND BE A TRANSFORMER

- We transform our students into highly competent, versatile, sought-after, and respected graduates
- Every student goes through a massive transformation, no matter what their starting point was or their prior background
- SIS graduates are the key enablers of transformation efforts in the industry and government organisations

SYNERGY OF BUSINESS-IT

My role in Bosch

Backed by my **management consulting** experience in marketing and **customer analytics** across Southeast Asia, I joined Bosch as a Manager at the executive management office of the President for Southeast Asia, based in Singapore. I work directly with top executives and senior management across Southeast Asia to **analyse** business performance, **design** growth plans, and **implement** initiatives to drive performance across every business sector that Bosch is present in (i.e. Automotive Technology, Consumer Goods, Industrial Technology, Energy and Building Technology). It is both **challenging** and exciting to be part of a leading global supplier of technology and services, especially when **gaining insights** into the minds of the most senior and experienced people of a global organisation, understanding the engineering industry, and developing an appreciation for the diverse international culture at Bosch.



How SIS equipped me for my career

I have always been a proud graduate of SMU SIS and a strong advocate for our interns and graduates. I have experienced how my academic knowledge and skills have served me well throughout my career. Looking beyond the relevance of the curriculum to the workplace, it is the life skills gained in **learning to learn, time management, and logical thinking** that I have applied throughout my career.

Embracing the right attitude for learning and the steeliness to endure difficult work has rewarded me well. The harshest of times (often involving time management challenges) built character, developed solid friendships and mentorships, and opened doors that I never thought possible (so to my juniors, hang in there).

While it is fortunate that I don't have to rely on my mediocre programming skills to earn my keep, the biggest takeaway from coding was logical thought: if this happens, do that; facing a complex problem, dissect it into branches of a decision tree. I still use this daily to think through all kinds of problems.

I can list more examples, but the bottom line is: would I have **achieved** as much in my career thus far if I wasn't a SIS graduate? The answer is a simple no.

Olivia Chiu Cheuk Ning

*Bachelor of Science (Information Systems Management) and
Bachelor of Business Management (Class of 2010)
Manager, Bosch*

CURRICULUM

The Bachelor of Science (Information Systems Management) aims to produce graduates with a solid capability to conceptualise, design, create and implement information systems solutions in the context of business and organisational settings.








BSc (Information Systems Management) AY2015-16 Curriculum

INFORMATION TECHNOLOGY & SYSTEMS	MANAGEMENT & 2 ND MAJORS	SMU BROAD BASED
5 IS Software Foundations	2 Business-Oriented Electives (Compulsory Courses)	3 SMU Foundations
6 IS Advanced Topics	4 Business-Oriented Electives (Major-related courses offered by the other SMU Schools)	4 SMU University Core
4 IS Technology/Management Depth Electives	Additional 2 nd Major Electives (Courses from the other SMU Schools or from SIS)	4 General Education
1 Capstone Project		1 Modes of Thinking
		1 Globalisation Studies
		1 Asian Studies
16 Courses	6 Courses (With +2 to +4 for 2nd major)	14 Courses
Internship (at least 10 continuous weeks) & Finishing Touch		
Community Service (at least 80 hours)		

2nd Majors

Advanced Business Technology • Without Track • Banking Processes & Technology Track • Enterprise Systems & Solutions Track • Information Security & Assurance Track • Technopreneurship Track	Accounting	Actuarial Science	Analytics	Applied Statistics
	Arts & Culture Management	Corporate Communication	Economics	Finance
	International & Asian Studies	Legal Studies	Marketing	Operations Management
	Organisational Behaviour & Human Resources	Political Science	Psychology	Public Policy & Public Management
		Quantitative Finance	Sociology	Strategic Management
	8 Second Major Electives (With double counting possibilities)			

Second Majors offered by

 School of Accountancy	 School of Information Systems	 SMU-wide
 Lee Kong Chian School of Business	 School of Law	
 School of Economics	 School of Social Sciences	

HIGHLY COLLABORATIVE LEARNING CULTURE



- Incredible culture of peer support, peer-to-peer learning, seniors helping juniors, faculty and staff helping students
- Strong sense of family and community within SIS
- Student bonding in SIS is special. Students say “We are like a family”

EXPERIENCE THE FUTURE NOW



- Do projects with our Research & Development Centres and Labs
- Be part of our state-of-the-art collaborations with industries
- Participate in our enhanced Research eXperience for Undergraduates (RXU) programme
- Be a technopreneur and try out new ideas you have been imagining
- Use the latest ways in which Infocomm is changing the way we live, learn, work and play

GLOBAL EXPOSURE



- SIS students have many global exposure opportunities such as Technopreneurship Study Missions, Business Study Missions, Exchange Programmes, Internships, Community Service Projects, and Business-IT Case Competitions

VERSATILITY



- 98% of our SIS students take up a second major or double degree to gain a wider breadth of knowledge and experience for greater career versatility
- SIS graduates are employed across a wide spectrum of job roles in various industries

START-UP CULTURE

- Almost 50% of all SMU start-ups are founded or co-founded by SIS students. A growing number of SIS students are choosing to work for start-ups
- SIS offers a second major in Advanced Business Technology (Technopreneurship Track) and Technopreneurship Study Mission courses
- SIS students have training, guidance and support from SMU's Institute of Innovation & Entrepreneurship



SIS Alumni Vincent Lai & Andy Soh, Co-founders of Tocco Studios

GREAT CAREER OPPORTUNITIES ARE A GIVEN

Different Industries, Different Job Roles

Info-Communications	Saraswathy Aruna Annamalai <i>LinkedIn, Compensation & Benefits Associate Analyst</i>	Andy Choi Ming Hang <i>StarHub, Digital Media Insights, Head</i>
Audit & Consulting	Darius Chan <i>Ernst & Young Advisory Pte Ltd Senior Consultant, Advisory Services</i>	Yeo Cheng Pei <i>KPMG, Assistant Manager (Advisory Management Consulting)</i>
Education & Healthcare	Alfred Teng <i>Temasek Polytechnic, Lecturer</i>	Andrea Cristina Ng <i>Temasek Polytechnic, Lecturer</i>
Government & Public Sector	Edmund Zhou Weixiang <i>Housing Development Board, Deputy Director (Housing Management)</i>	Joshua Nair <i>Singapore Economic Development Board, Senior Officer</i>
Retail	Lai Siu Chun <i>RedMart, Product Manager</i>	Tang Kejie <i>Xiaomi, Marketing Manager (Social)</i>
Start-Ups	Leonard Lin <i>Tyler Projects, Technopreneur</i>	Vincent Lai & Andy Soh <i>Tocco Studios, Technopreneurs</i>

Accurate as of 30 January 2015



Industry knows SIS graduates are a special breed –

- They are reliable and they get things done!
- They have deep experience with complex projects and team dynamics and are able to adapt to the workforce very quickly
- They are able to go from concept to implementation within a tight deadline and practical constraints

Amelia Low Ying Hui <i>Facebook, Marketing Communications Executive (APAC marketing communications team)</i>	Jenzus Hsu Yong Jie <i>3D Networks Pte Ltd, Technology Consultant</i>	Tay Wen Bin <i>VMWARE, Associate System Engineer</i>	Muhammad Bin Mohsin <i>Google (USA), Software Engineer</i>
Lim Jian Long Ricky <i>Deloitte Consulting, Business Consultant</i>	Wong Wei Min <i>PricewaterhouseCoopers, Technology Consultant</i>	Ho Si Min <i>Accenture, Business & Systems Integration Analyst</i>	Akangsha Bandalkul <i>Healy Consultants, IT Manager</i>
Aries Ong <i>Singapore Management University, Senior Manager</i>	Thia Kai Xin <i>Khoo Teck Puat Hospital, Healthcare Analytics Unit, Analyst</i>	Robin Zhuang Zhirong <i>GlaxoSmithKline, Business Process Analyst (Multichannel Collaboration)</i>	Aaron Lee Kwang Siong <i>Singapore Management University, Senior Web and Digital Content Executive</i>
Lin Zhenda <i>Singapore Armed Forces, Officer</i>	Chloe Lim Yi <i>Infocomm Development Authority Singapore, Associate Consultant</i>	Tan Kheng Yew <i>Centre for Strategic Infocomm Technologies, Assistant Chief Information Officer</i>	Eric Noviharto Budihardja <i>Land Transport Authority, Manager, Innovation Office</i>
Alvin Chia Jiawei <i>Weatherford Regional, Strategic Planning Manager</i>	Tan Choon Yan <i>PayPal, Startup Advocate, Asia Pacific</i>	Gina Ho <i>DFS Group, Senior Business Analyst, Global Technology</i>	Adrian Cheng Bing Jie <i>TripAdvisor (USA), Mobile Engineer</i>
Tay Wei Kiat <i>Originally US, Technopreneur</i>	Keith Ng, Damon Widjaja & Brenda Tan <i>Gametize, Technopreneurs</i>	Steve Sng Wei Zhuang <i>LoveByte Pte Ltd, Technopreneur</i>	Chia Luck Yong <i>Edusnap, Technopreneur</i>

HEAR FROM OUR GRADUATES

Diverse roles in the financial industry. Testimonials from SIS alumni –



“IT is more than just programming.” This was the message I got in 2006 when researching on SIS. Its holistic curriculum coupled with a strong business focus has attracted me. The high **pre-graduation employment rate** and high average starting **salary** were very appealing too. The programme covers a wide spectrum of disciplines from the highest level of IT management (project management) to the lowest one (programming) which gave me a taste of the different flavours of IT. I selected Finance as my second major to complement my IT knowledge. It facilitated my role as a business analyst in the front-office IT team in Deutsche Bank. My **ability to bridge the business needs with IT solution** is the key to building trust with my stakeholders. IT is not just about technology but how technology is used to **solve business problems**. I’m glad that I have chosen a course which grooms me on that.”

Fu Qifei

Bachelor of Science (Information Systems Management) (Class of 2010)
Business Analyst, Deutsche Bank

“To be frank, when I tried reading about the SIS curriculum, I barely understood it. However, the concept of **Business + IT** (applying the technologies to problem solving in business settings) was pretty attractive to me. SIS definitely prepares me well for the job. I think one of the most important skills is **learning-to-learn**. We were not spoon-fed in SIS. Instead, we were expected to **analyse problems** and **derive solutions backed by logic and facts**. This is vital to the ever-changing world of technology we are currently in. The knowledge that you acquire may be obsolete in a few years; so developing the ability to pick up new things quickly is essential. I work as a web application developer in Barclays. What is “web application”? Think google.com, facebook.com, etc. My team **develops web-based systems** for internal employees. In my current project, the application we build also has to be packaged to iPhone, iPad, Android phones and tablets. When I was offered the job, it was something too good to reject at that point of time – especially the one-month training in London! I am lucky to be in a team which encourages learning of the latest technologies and innovation.”

Gan Kah Hwee

Bachelor of Science (Information Systems Management) (Class of 2011)
Analyst, Barclays Bank PLC





"I chose SIS to stay close to my interests in IT and at the same time broaden my exposure to non-IT fields as a way to try out something different. This also explains why I picked legal studies as my second major. I am currently doing **software development** at the bank, supporting applications that are used in the course of the bank's trading. **The IS modules** I took in SIS **have practical applications during both my internship and my current work**. For example, I took a Data Warehousing module in SIS, which was closely related to an earlier project I worked on. As such, I was able to pick up new concepts and contribute new ideas quickly. Furthermore, given the size of the bank's **software architecture**, the concepts that I learnt in SIS, such as middleware frameworks and **enterprise integration**, became fundamental to my regular development tasks."

Han Jun Kwang

Bachelor of Science (Information Systems Management) (Class of 2010)
Assistant Vice President, Bank of America Merrill Lynch

"Since February 2014 I have been working in the Project Management Office on a strategic initiative to digitally deliver the best of UBS Wealth Management to our clients in APAC. This involves working with colleagues in **Business and IT** to deliver change projects that go beyond the traditional boundaries of **innovation** in the industry. Putting into practice the skills I acquired at SIS has made my experience a really exciting and satisfying one so far. My understanding of challenges at the **interface** of Business and IT enables me to seize opportunities to collaborate and bring out the best of the organisation. Reaching across organisations requires an understanding of the **principles of technology** (design, project management, and architecture), business (revenue drivers, processes and organisational strategy) and people skills (collaboration, communication and cross cultural skills). The **multifaceted learning approach** taught at SIS has equipped me with skills that are important (regardless of career path or industry) in our increasingly digitised world. In addition, I rate the **"learning-to-learn"** ability as perhaps the best skill that SIS has given me. Four years of team-based project work (designed around **open-ended real world problems**) has instilled me with the confidence that I can acquire new knowledge effectively. Entering the workforce, this approach to **continuous learning** has definitely helped me overcome many day-to-day challenges."



Andre Ng Yu Choon

Bachelor of Science (Information Systems Management) (Class of 2012)
Project Manager, UBS Wealth Management IT (Project Management)



"I am working as a senior **database administrator** in UOB. The database administrator's core responsibility is to ensure that the data warehouse has sufficient capacity to sustain the data growth, is **secure** from unauthorised access and has a robust and efficient logistics operation to fetch the data. Part of the database administrator's role is also to **plan ahead** to enhance the data warehouse capabilities in order to **meet** the dynamic and changing **data processing needs**."

Wu Xia

*Bachelor of Science (Information Systems Management) and
Bachelor of Business Management (Class of 2007)*
Assistant Vice President, United Overseas Bank

LEARNING ENVIRONMENT



Singapore Management University (SMU) is created to be a premier university internationally recognised for research and education centred on management, social science, analytics and computing. The SMU School of Information Systems (SIS) was created within this context to be similarly recognised internationally for its innovative research and education focused on Information Systems Technology, Information Systems Management, as well as problems and issues at the intersection of IS related technology and management.

SIS possesses deep technology-based research and creation capability in strategically selected areas of information technology, systems and applications. It also actively investigates a range of issues related to the managerial and business impacts of IT within firms, across collaboration networks and value chains, as well as across markets and industries.

SIS interacts with business, industry and government partners on an ongoing basis to deliver its vision of highly integrated and relevant learning experiences. Its external partners work with it to provide internships, expertise to co-design its curriculum, and student scholarships.



ADMISSION REQUIREMENTS

Admission to the School of Information Systems is on a selective and competitive basis. As part of SMU's holistic admissions process, applicants will be evaluated on the basis of:

- Academic record
- Co-curricular activities
- SAT (if applicable)
- Interview and/or essay writing, for shortlisted applicants

Admission requirements are subject to change from time to time. For full details, please visit www.admissions.smu.edu.sg



School of Information Systems

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The SMU Jump was introduced when SMU was established in 2000 as a way of differentiating ourselves. It symbolises the high energy and different perspectives that our students are capable of bringing to any situation or issue, and making a difference. It has evolved into a highly recognisable and endearing icon; and is very much an integral part of the SMU spirit that transcends and binds all students past and present and the larger SMU community together.