SIS 2nd MAJOR SESSION

Wednesday
29 April 2015
BSc (ISM) Curriculum & 2nd Major offered by SIS

Associate Dean, Education
Venky SHANKARARAMAN
# SIS CURRICULUM


## INFORMATION TECHNOLOGY & SYSTEMS
- IS Software Foundations
- Object Oriented Application Development
- Software Engineering
- Enterprise Integration
- Enterprise Web Solutions
- Interaction Design & Prototyping
- IS Application Project
- IS Depth Electives (4)

**16 Courses**

## MANAGEMENT & 2ND MAJORS
- Seminar on IS Management
- Data Management
- Process Modelling & Solution Blueprinting
- Information Security & Trust
- Architectural Analysis
- IS Depth Electives (4)

**Additional Second Major Electives**
*(Courses from the other SMU Schools or from SIS)*

**Business Oriented Electives (4)**
*(Major-related courses offered by the other SMU Schools)*

**4 Courses for ISM Major** *(With +2 to +4 for 2nd major)*

## QUANTITATIVE THINKING
- Computer as an Analysis Tool (CAT)
- Intro Statistics
- Computational Thinking *(counted as a General Ed elective)*

**2 Courses**

## SMU BROAD BASED
- SMU Foundation (3)
  - Academic Writing
  - Intro Economics
  - Calculus
- SMU Common University Core (6)
  - Analytic Skills (1/2)
  - Creative Thinking (1/2)
  - Biz, Gov & Society
  - Management Comm.
  - Ethics and SR
  - Tech & World Change
  - Leadership & Team Building
- General Education (3)
  - GE elective #1, #2
  - Comp. Thinking for SIS
- Global & Regional Studies (2)
  - Elective 1
  - Elective 2

**14 Courses**

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**Internship** *(at least 10 continuous weeks) & Finishing Touch*

**Community Service** *(at least 80 hours)*
BSc (IS Management) 1st Major

16 IS Courses

Business Oriented Electives

Quantitative Thinking

SMU Broad Based

Finishing Touch Workshops + Internship + Community Service

Total 36 Courses

2nd Majors

8 Second Major Electives (with double counting possibilities)
What 2\textsuperscript{nd} major shall I choose to take?

http://sis.smu.edu.sg/programmes/bsc-ism-curriculum/2nd-majors

**Second Majors for BSc (ISM) students**

2\textsuperscript{nd} Majors Offered
- School of Accountancy
- Lee Kong Chian School of Business
- School of Economics
- School of Information Systems
- School of Law
- School of Social Sciences
- Across SMU schools

![Diagram of second majors](diagram.png)
2nd Majors offered by SIS

The Singapore Management University (SMU) has recently introduced a university-wide 2nd major in **Analytics** for undergraduates. Students can take the **Analytics** 2nd major & specialise in one of the five tracks listed below, or choose a “No-Track” option:

<table>
<thead>
<tr>
<th>Marketing Analytics</th>
<th>Operational Analytics</th>
<th>Accounting Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban &amp; Regional Analytics</td>
<td>Advanced Technology for Analytics</td>
<td></td>
</tr>
</tbody>
</table>

Students in the **Analytics** 2nd major are required to take an **Analytics** Practicum Course, where they will work in partnership with external organisations to apply what they have learned to real-world problems.

For more information, please visit [http://sis.smu.edu.sg/2nd-majors-analytics](http://sis.smu.edu.sg/2nd-majors-analytics)
Advanced Business Technology
- Enterprise Systems Solutions Track

SIS Faculty Advisor:
Venky SHANKARARAMAN
Enterprise Systems & Solutions Track

Sales
- Receive Order
- Prepare Shipment

Warehouse
- Send Shipment

Accounting
- Send Invoice
- Process Payment

HRM  ERP  CRM  SCM

ES & S
Areas of Focus

- Understand issues related to the interaction between organization design and the design of enterprise systems
- Understand enterprise business processes
- Get hands-on experience in:
  - Using enterprise systems (e.g. ERP, SCM, CRM)
  - Developing composite applications
  - Using cloud computing platforms and services
Career Prospects

• Builds on the core foundation and exposes you to real world enterprise applications and the emerging paradigms for building enterprise solutions such as composite applications and cloud computing
  • Solution Consultant
  • Business Analyst
  • IT Architect
  • Solution Architect
  • Project Managers
**Enterprise Systems & Solutions Track**

| Computer as an Analysis Tool | Enterprise Business Solutions + Cloud Computing and SaaS Solutions + 3 IS Technology Depth Electives | Supply Chain Processes and Technology or Enterprise Information Systems | 1 IS Management Depth Electives or 1 IS Technology Depth Electives |

Advanced Business Technology - Technopreneurship Track

SIS Faculty Advisor: Desai NARASIMHALU

Presenter: Venky SHANKARARAMAN
## SIS Technopreneurship Track

### Recognized by UNCTAD as an innovation approach to entrepreneurship

<table>
<thead>
<tr>
<th>Activity</th>
<th>Objective</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT and Business Innovation</td>
<td>Identify innovation opportunity</td>
<td>Business Innovation opportunity identified</td>
</tr>
<tr>
<td>Technopreneurship study mission</td>
<td>1. Understand entrepreneurship landscape</td>
<td>Internship host identified</td>
</tr>
<tr>
<td></td>
<td>2. Explore internship possibilities</td>
<td></td>
</tr>
<tr>
<td>Technopreneurship</td>
<td>Learn how to build a company</td>
<td>Initial blueprint for a start up designed; Technology sourced / developed.</td>
</tr>
<tr>
<td>Entrepreneurial Internship</td>
<td>Apprenticeship for building a business</td>
<td>Steps and challenges in building a start up learnt from practice. Start up blueprint refined</td>
</tr>
<tr>
<td>FYP / POC</td>
<td>Build a proof of concept prototype</td>
<td>Core functions of the prototype developed</td>
</tr>
</tbody>
</table>
• Declare major end of 2\textsuperscript{nd} Year or Beginning of 3\textsuperscript{rd} Year

• **You are required to do only 2 required courses to get this major**
  
  • IS 401 IT and Business Innovations  
  • IS 426 Technopreneurship

• **Those intending to start a business are encouraged to benefit from other three courses**
  
  • IS 427 – enjoy 70% subsidy, learn from entrepreneurs  
  • Entrepreneurial internships in US, Europe and Asia, live the life of an entrepreneur  
  • IS 480: Raise up to 50 K to develop your innovative prototype for FYP
Impact for 2009 – 2014

Students reached
(10,789)

Students attending our events and talks
(8,383)

Students attending Start Up 101 / Study Missions & Workshops
(2,073)

Student & Non-Student Companies
(119)*

- Raised 13 M in grants for directed programs
- Helped 119 teams create start ups
  - Helped them raise $4.1M in grant funding
  - Helped them raise $12.5M in investments

(c) IIE April 2015

<table>
<thead>
<tr>
<th>Pre-2009</th>
<th>2009 - 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>94</td>
</tr>
<tr>
<td>companies</td>
<td>companies</td>
</tr>
</tbody>
</table>
Benefit from IIE’s Incubation Process

Pre admission
- Qualifying
- Grant assistance

Admission
- Condition
- Business Mentor

Graduation
- One year
- Fund raising

Engagement
- Start up Strategy
- Functional Mentor
- Customer acquisition
Raise funds for your FYP / Startup

• Proof of concept grant
  – IDM i.Jam Reload grant
    • Up to $ 50,000
    • Investment up to 100,000
  – ACE’s YES
    • Up to $ 50,000
  – SMART Explorer grant
    • Up to $ 50,000

• Workshops
  – Refining Business Innovations
  – Innovation Development
  – Building a new business
  – Power selling

• Starting a company
  – Participate in the networking events to learn from others
    • DSS, Entrepreneurs corner, Lunch time talks, TSM, Internship etc.
  – Benefit from IIE sponsored workshops
  – Choose a mentor from over 75 Business Mentors
  – Benefit from functional mentor
  – Get investments from Angel investors and VCs
    • 200 K to 1 Million dollars
<table>
<thead>
<tr>
<th>Companies created by SIS students</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2014</td>
<td></td>
</tr>
<tr>
<td>1. Aings</td>
<td>18. SQKII</td>
</tr>
<tr>
<td>3. Apptheon</td>
<td>20. Teladi</td>
</tr>
<tr>
<td>4. Arges</td>
<td>21. Tocco Studios</td>
</tr>
<tr>
<td>5. Baboonza</td>
<td>22. Tweetoutloud</td>
</tr>
<tr>
<td>6. Gamemaki</td>
<td>23. Tyler Projects</td>
</tr>
<tr>
<td>7. I feel</td>
<td>24. Viatick</td>
</tr>
<tr>
<td>8. I’m here</td>
<td>25. Vicimi</td>
</tr>
<tr>
<td>9. iSwim</td>
<td>26. Wressence</td>
</tr>
<tr>
<td>10. Oompr</td>
<td>27. Engage Ventures</td>
</tr>
<tr>
<td>11. Open Business</td>
<td>28. CarrotSnap</td>
</tr>
<tr>
<td>12. Nectary Studio</td>
<td>29. Deanslist</td>
</tr>
<tr>
<td>13. Quantine</td>
<td>30. Leggo</td>
</tr>
<tr>
<td>15. Simplify</td>
<td>32. TechSociety</td>
</tr>
<tr>
<td>16. Smoo (Spotted)</td>
<td>33. LeanTix</td>
</tr>
<tr>
<td>17. Sociolico</td>
<td></td>
</tr>
</tbody>
</table>
Some significant companies

- Tyler Project
  - Was earning 2 M dollars revenue per year on a cost base of 750 K
- Appic Technology
  - Acquired by Chope
- Tocco Studios
  - Offering travel related surface applications
- Quantine
  - Operates in the USA
- Baboonza
  - Renamed as Lovebyte and acquired by Migme
- Open Business
  - 2 M dollar order book for ERP Solution for SMEs
- Nectary studio
  - Had highest ranked game in Singapore Appstore, major order from Mediacorp
- Simplifly
  - A leading consultant for airline industry
We help you build your dream company

Let us HELP you
BUILD your dream company!
Just like how we helped your friend here!

**Oompr!**
Oompr is an online marketplace that makes it fun and easy for individuals to discover what their friends are buying and selling. It addresses many pain points in the existing online marketplaces and forums.

Funding Source: ACE Grant $50,000

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**Quantine**
Quantine provide job-specific assessments that are tailored for the industry by the industry. That is why our assessments are authored from “best-of-breed” practices by industry veterans and institutions.

Funding Source: YES! Grant $50,000

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**Tocco Studios**
Tocco Studios develop both the hardware and the software for a multi-touchable, highly interactive interface that can be customized and assembled for different business needs.

Funding Source: IJAM Grant $50,000

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**TweetOutLoud**
TweetOutLoud is a mobile application that allows users to interact with their Twitter using voice commands.

Funding Source: SMU Innovation Award $25,000

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iie.smu.edu.sg

Our friendly staff are ready to help!
Contact us at 6886 1901/ iie@smu.edu.sg
SIS
Technopreneurship Track

Do you know you do only 2 courses

- (IS401) IT & Business Innovation
- (IS426) Technopreneurship

And derive following benefits:

- Subsidized TSM (IS427) (Subsidy worth up to $3,000)
- Possible Internships with overseas Start Ups
- Admission to workshops taught by successful serial entrepreneurs
- Grant of up to $50,000 to start a company
- SMU Innovation Awards

Don’t miss the opportunity!
Declare this as your
2nd major in OASIS

For further enquiries
Sophia HENG | (E)sophiaheng@smu.edu.sg | (P)6828 0630
NOTES
Students doing the Technopreneurship Track are recommended to:

- Do an additional internship in the area of Technopreneurship
- Work on their proof of concept for the IS480 project

Advanced Business Technology
- Banking Processes & Technology Track

SIS Faculty Advisor:
Alan MEGARGEL
An undergraduate would be required to complete the following modules:
- Computer as An Analysis Tool
- 5 IS Technology Depth Electives
- 1 IS Management Depth Electives
- 1 IS Technology or IS Management Depth Elective
But why Banking Technology & Processes track?

Banking is Technology
Without technology, there is no bank.

Yong Shao Qin
Intern at ANZ (October 12 to April 13)
Information Security & Technology Assurance Officer
ANZ (Current)
What do I get to do in this track?

Compulsory (2 of 3, your choice)
- Retail Banking Processes and Technology (IS419)
- Financial Markets Processes and Technology (IS423)
- ePayments Processes and Technology (IS430)

Any IS Technology/Management Depth Electives (Strongly recommended)
- FS T&O Study Mission to London (IS438)
- Guided Research in IS (IS470/IS471) ← banking related
SMU Teaching Bank on the Cloud

- SMU Teaching Bank is deployed onto Amazon EC2, and available for use by other universities.

http://tbankonline.com
Career Prospects

Financial Institutions
- Application Developers
- Business Analysts
- IT Architects
- Project Managers

Service Providers
- Application Developers
- Business Analysts
- IT Architects
- Project Managers
- Sales Specialists
- Solution Architect
- Consultants
Singapore Financial Services Landscape

- World’s 4th leading financial center.
  - 6 Local banks
  - 26 Foreign full banks
  - 52 Wholesale banks
  - 39 Offshore banks
  - 1 Financial Holding Company
  - 46 Merchant banks
  - 36 Representative offices of banks
  - 380 Money changers
  - 80 Remittances
  - 3 Finance companies
  - 165 Institutions with ACU

- World’s 4th largest foreign-exchange trading center.
  - Average daily foreign exchange turnover volume reached US$266b (2010 BIS Survey)
Financial Services Pays Well

Average Monthly Earnings by Industry (2011)
Students with special interest in banking processes, operations and technology solutions are strongly encouraged to take some of the courses in finance that are offered by the Lee Kong Chian School of Business. These courses can be counted towards your Business Oriented Electives.

The End

+65 6808-5155  enochchng@smu.edu.sg  Enoch.Chng
Advanced Business Technology
- Information Security & Assurance Track

SIS Faculty Advisor:
DING Xuhua
Course Requirements

• IS 102: Computer as an Analysis Tool
• IS 302: Information Security & Trust
• IS 403: Network Security
• IS 437: Software & Systems Security
• IS 436: Data Security and Privacy
• IS 433: Information Security Management

{ 2 out of 3
• 4 more IS Technology Depth Electives (IS 204: Networking recommended)

Or
• 3 more either IS Tech + 1 IS Mgmt. Depth Elective (IT and the Law recommended)
Information Security and Assurance Track

- IS 204: Networking
- IS 302: Information Security & Trust
- IS 102: Computer as Analysis Tool

Related Groups at SMU / SIS
- Data Management & Analytics Group
- Software Systems Group
- Intelligent & Decision Analytics Group
- Information Systems & Management Group
- School of Law

2 out of 3 Required
Suggested Elective
Open Elective

2 out of 3

2 or 3CUs

IS 403: Network Security
IS 436: Data Security & Privacy
IS 437: Software & Systems Security
IS Open Elective (2 or 3CUs)
IS 433: Information Security Management
LAW: IT and the Law
Potential Security Career*

- Information Security Officer
- Information Security Analyst
- Information Security Specialist
- Information Security Architect
- Information Security Manager
- Information Security Director
- IT Audit and Assurance
- IT Security Analyst
- IT Security Auditor
- IT Security Consultant
- IT Security Engineer
- Cyber Security Engineer
- Cyber Security Analyst
- Forensic Analyst
- Incident Responder
- Malware Analyst
- Network Security Engineer
- Computer Crime Investigator

* [http://www.sans.org/20coolestcareers/]
McAfee ISA Award

• Two ISA Awards of S$3000 each will be presented to the top two students of any nationality who demonstrated outstanding academic results in the track and have the desire to pursue a career in the security sector.
## Mapping with Security+ Certificate (CompTIA)

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<td>• Network security</td>
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<tr>
<td>• Compliance and operational security</td>
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<td>• Threats and vulnerabilities</td>
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<td>X X X</td>
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<tr>
<td>• Application, data and host security</td>
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<tr>
<td>• Access control and identity management</td>
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<td>• Cryptography</td>
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## Mapping with CISSP Certificate (ISC)²

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<tr>
<td>• Information security and risk management</td>
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<tr>
<td>• Access control</td>
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<tr>
<td>• Cryptography basics</td>
<td>X</td>
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<td>• Physical (environmental) security</td>
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<td>• Security architecture and design</td>
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<tr>
<td>• Telecommunications and network security</td>
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<tr>
<td>• Application security</td>
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<td>• Operations security</td>
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<td>• Business continuity and disaster recovery plan</td>
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<tr>
<td>• Legal, regulations, compliance &amp; investigations</td>
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</table>
# Mapping with CISM Certificate (ISACA)

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<tbody>
<tr>
<td>• Information Security Governance</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>• Information Risk Management and Compliance</td>
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<td>X</td>
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<tr>
<td>• Security Program Development and Management</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
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<td>X</td>
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<tr>
<td>• Information Security Incident Management</td>
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</tbody>
</table>
Advanced Business Technology
- without Track

SIS Faculty Advisor:
Venky SHANKARARAMAN
Why Choose ABT (without Track)?

- **Flexibility** to select courses on topics that interest you most.
- Enabling a **broad understanding** of different application areas and solutioning methods
- Go further with designing, integrating and realizing **innovative software solutions** that enhance business value and capability.
- Strengthen your technology capability and gaining more experience with **larger scale problems** and deeper integration of IT solutions in the setting of specific industry and business problems.
Students who chose this option will learn about concepts and application without special focus on a particular domain or field (unlike the other 5 tracks) and will be able to pick up courses of choice under the broader analytical category.
2nd Major in Analytics (SMU-wide)

SIS Faculty Advisor: Seema CHOKSHI

Presenter: Prakash Chandra SUKHWAL
Second Major in Analytics

Second Majors for Undergraduates

- Accounting
- Actuarial Science
- Advanced Business Technology
- Analytics
- Arts & Culture Mgmt.
- Business Statistics
- Corporate Comm.
- Economics
- Finance
- Information Systems Mgmt.
- International & Asian Studies
- Law
- Marketing
- Operations Mgmt.
- Org. Behaviour
- Political Science
- Psychology
- Public Policy & Public Mgmt.
- Quantitative Finance
- Sociology
- Strategic Mgmt.
Course Requirements for the 2\textsuperscript{nd} Major

<table>
<thead>
<tr>
<th>Analytical Foundation Requirements</th>
<th>Track Specific Requirements and/or Electives</th>
<th>Additional Electives</th>
<th>Analytics Practicum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Courses</td>
<td>3 Courses</td>
<td>2 Courses</td>
<td>1 Course</td>
</tr>
</tbody>
</table>

Total of 8 Courses

Students are able to Graduate with Bachelors + Analytics 2\textsuperscript{nd} Major within 39 Courses
# Details of Courses

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Track Specific</th>
<th>Add. Electives</th>
<th>Practicum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Courses</td>
<td>3 Courses</td>
<td>2 Courses</td>
<td>1 Course</td>
</tr>
<tr>
<td>• Analytics Foundations</td>
<td>• Marketing Analytics Track</td>
<td>• All the Track-Specific Courses qualify as Analytics Electives. Additionally, the courses listed below can also be taken as Analytics Electives:</td>
<td>• Analytics Practicum</td>
</tr>
<tr>
<td>• Computational Thinking IS 103</td>
<td>• Operational Analytics Track</td>
<td>• PSYC110 Psychology Research Methods I</td>
<td>Analytical Project Course with real world cases in partnership with external organizations</td>
</tr>
<tr>
<td></td>
<td>• Urban &amp; Regional Analytics</td>
<td>• PSYC201 Psychometrics and Psychological Testing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advanced Technology Track</td>
<td>• PSYC208 Psychology Research Methods II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Accounting Analytics Track</td>
<td>• STAT205 Computational Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No Track</td>
<td>• STAT313 Quantitative Risk Analysis</td>
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<tr>
<td></td>
<td></td>
<td>• STAT204 Survey Methods</td>
<td></td>
</tr>
</tbody>
</table>
# Program Structure for Undergrad Analytics 2\textsuperscript{nd} Major at SMU

<table>
<thead>
<tr>
<th>Analytical Foundation Requirements</th>
<th>Track Specific Requirements and/or Electives</th>
<th>Additional Electives</th>
<th>Analytics Practicum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Courses</td>
<td>3 Courses</td>
<td>2 Courses</td>
<td>1 Course</td>
</tr>
</tbody>
</table>

**Operational Analytics Track**
- Management Science
- High Performance Warehousing & Fulfillment
- Computer Simulation by Modeling Business Systems
- Managing Process Improvement
- Supply Chain Process & Technology Solutions
- Enterprise Analytics for Decision Support

**Advanced Technology Analytics Track**
- Advanced Data Management
- Data Warehousing & Business Analytics
- Data Mining & Business Analytics
- Visual Analytics & Business Intelligence
- System Dynamics & Business Gaming
- Intelligent Business Gaming
- Applied Regression Methods

**Marketing Analytics Track**
- Marketing Information Systems
- Marketing Research
- Social Analytics
- Search Engine Technologies

**Urban & Regional Analytics Track**
- Geospatial Analytics for Business Intelligence
- Social Networks
- Sociology & Political Science Research Methods

**Accounting Analytics Track**
- Accounting Information Systems
- Enterprise Accounting Systems
- Data Management

**Total of 8 Courses**
Students are able to Graduate with Bachelors + Analytics 2\textsuperscript{nd} Major within 39 Courses
<table>
<thead>
<tr>
<th>TRACK SPECIFIC COURSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MARKETING ANALYTICS</strong></td>
<td><strong>OPERATIONAL ANALYTICS</strong></td>
</tr>
<tr>
<td>MKTG103 Marketing Research</td>
<td>OPIM101 Management Science</td>
</tr>
<tr>
<td>MKTG209 Marketing Information Systems*</td>
<td>OPIM322 High Performance Warehousing and Fulfilment</td>
</tr>
<tr>
<td>MKTG220 Digital Marketing</td>
<td>OPIM331 Computer Simulations by Modelling Business Systems</td>
</tr>
<tr>
<td>MKTG228 Marketing Analytics</td>
<td>MGMT317 Managing Process Improvement</td>
</tr>
<tr>
<td>IS414 Search Engine Technologies</td>
<td>IS406 Supply Chain Processes &amp; Technology</td>
</tr>
<tr>
<td>IS434 Social Analytics (new!)</td>
<td>IS421 Enterprise Analytics for Decision Support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ADVANCED TECHNOLOGY FOR ANALYTICS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IS410 Advanced Data Management</td>
<td></td>
</tr>
<tr>
<td>IS417 Data Warehousing and Business Analytics</td>
<td></td>
</tr>
<tr>
<td>IS418 Intelligent Business Gaming</td>
<td></td>
</tr>
<tr>
<td>IS424 Data Mining and Business Analytics</td>
<td></td>
</tr>
<tr>
<td>IS428 Visual Analytics Business Intelligence</td>
<td></td>
</tr>
<tr>
<td>STAT312 Applied Regression Methods</td>
<td></td>
</tr>
</tbody>
</table>
Double-counting & Related Curriculum Matters

Presenter:
Edison Lim (SIS Yr 2)

For queries, contact SIS School Managers:
Jeandie LIM, Sophia HENG, Dave CHUA
sis_ugrad@smu.edu.sg
Declaration of 2\textsuperscript{nd} Major

- Please declare by the last Friday (noon) of Modified Term 2 of 2014-15, i.e. 5 June 2015 (12 noon) via OASIS > Study > Enrolments & Withdrawals > Declare/Change Major/Major with Track/Concentration.

- **Incentive for early declaration:**
  - You get to bid for courses under your First Major in BOSS 1.
  - Students with declared Second Major get to bid for courses under the respective Second Major in BOSS 1A.

- Any drop, amendment or late declaration to the First/Second Major or Major with Track/Concentration (to be submitted via OASIS) would be subjected to approval from the respective school as well as an **administrative charge of e$10** (an administrative hold# may also be placed on students who do not declare their First Major or Major with Track/Concentration within the first 4 regular terms of study).
What is double-counting?
https://wiki.smu.edu.sg/sis/Second_Major

Double-counting is using one module to clear the requirements of the **BSc (ISM) degree** (primary degree) and your **second major**. Therefore double-counting is not allowed within the BSc (ISM) degree; it is only allowed between (a) BSc (ISM) degree and second major or (b) BSc (ISM) degree and secondary degree, provided that the courses are listed in both course areas.

Take note that the **total CUs** earned after double counting does not fall below the minimum CUs required.
Example of Double Counting

https://wiki.smu.edu.sg/sis/Second_Major

Degree Requirements
- Foundation
- Uni Core
- BOE
- IS Foundations
- IS Advanced Topics
- IS Project & Electives
- GE
- GRS

Second Major Requirements
- Compulsory courses
- Electives
**Example of Double Counting (e.g. Marketing 2\textsuperscript{nd} Major)**

**Degree Requirements**
- Foundation
- Uni Core
- BOE
- IS Foundations
- IS Advanced Topics
- IS Project & Electives
- GE
- GRS

**Second Major Requirements**
(e.g. Marketing 2\textsuperscript{nd} Major)
- Consumer Behavior
- Finance
- Financial Accounting
- Marketing
- Marketing Research
- 3 Marketing Electives
Example of Double Counting (e.g. Marketing 2nd Major)

Degree Requirements
- Foundation
- Uni Core
- BOE
- IS Foundations
- IS Advanced Topics
- IS Project & Electives
- GE
- GRS

Second Major Requirements (e.g. Marketing 2nd Major)
- Consumer Behaviour
- Finance
- Financial Accounting
- Marketing
- Marketing Research
- Marketing Elective 1
- Marketing Elective 2
- Marketing Elective 3

Example of Double Counting (e.g. Marketing 2nd Major)
Example of Double Counting (e.g. Marketing 2\textsuperscript{nd} Major)

**Degree Requirements**
- Foundation
- Uni Core
- BOE (CAT & Stats)
- IS Foundations
- IS Advanced Topics
- IS Project & Electives
- GE
- GRS

**Double-Counting**

- **BOE**
  - Consumer Behaviour
  - Finance
  - Financial Accounting
  - Marketing

- **IS Depth Elective**
  - MIS / Digital Mktg / Mktg Analytics

- **GRS**
  - World Travel & Tourism

**Second Major Add-Ons**
- Marketing Research
- Marketing Elective 3

\*Additional requirement = 2 CUs
What are the 2nd major requirements and double-counting possibilities?

OASIS > Study > Advisement & Curriculum >> Second Major Requirements
What are the 2nd major requirements and double-counting possibilities?

OASIS > Study > Advisement & Curriculum >> Second Major Requirements

<table>
<thead>
<tr>
<th>2ND MAJOR</th>
<th>BSC(ISM) (ends admitt from AY2011-12 onwards)</th>
<th>DOUBLE COUNTING POSSIBILITY</th>
<th>BSC(ISM) (ends admitt from AY2008-09 to AY2010-11)</th>
<th>DOUBLE COUNTING POSSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKETING</td>
<td>Consumer Behavior</td>
<td>BOE1</td>
<td>Consumer Behavior</td>
<td>BOE1</td>
</tr>
<tr>
<td></td>
<td>Marketing Research</td>
<td>BOE2</td>
<td>Marketing Research</td>
<td>BOE2</td>
</tr>
<tr>
<td></td>
<td>3 Marketing electives</td>
<td>GR51 (MKTG224);</td>
<td>3 Marketing electives</td>
<td>GR51 (MKTG224);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ISME (MKTG229); BOE3</td>
<td></td>
<td>ISME (MKTG229); BOE3</td>
</tr>
<tr>
<td>Finance</td>
<td></td>
<td>BOE4</td>
<td>Finance</td>
<td>BOE4</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td></td>
<td>BOE4</td>
<td>Financial Accounting</td>
<td>BOE4</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td>Marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-requisite for compulsory course(s):</td>
<td>Marketing</td>
<td>Introductory Statistics</td>
<td>BOE Compulsory</td>
<td>Introductory Statistics</td>
</tr>
<tr>
<td></td>
<td>Minimum Course Units = 36</td>
<td></td>
<td></td>
<td>Minimum Course Units = 36</td>
</tr>
</tbody>
</table>

| STRATEGIC MANAGEMENT | (invasive w/e 11 2009-10) | Entrepreneurial Management | BOE1 | Entrepreneurs and Business Creation | BOE2 |
|                      |                             |                             |      |                                   |      |
|                       |                             | 6 Management electives:     |      | UC1                              |      |
|                       |                             | - Leadership & Teambuilding |      | UC2                              |      |
|                       |                             | - Technology & World Change |      | UC3                              |      |
|                       |                             | - Business, Government & Society | | UC3                              |      |
|                       |                             | - Management Elective 1     |      | BOE3                             |      |
|                       |                             | - Management Elective 2     |      | GR52 (MGMT205/209/361/308/312    |
|                       |                             | - Management Elective 3     |      | GR53 (MGMT313/315/316)           |
|                       |                             | Not applicable              |      | w/e 11 09-09                      |
| Pre-requisite for compulsory course(s): | Management of People at Work | BOE4 | Financial Accounting | BOE4 |

Minimum Course Units = 36
How to find the courses in course areas?

OASIS > Study > BOSS > BOSS Bidding

Top Ten FAQs

1. I dropped my course which I bided for e$87 in BOSS 2. However, I was only
How to find the courses offered in course areas? (cont’d)

BOSS > Class Search

<table>
<thead>
<tr>
<th>BOSS Dates</th>
<th>Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 2 Window 1</td>
<td>10:00</td>
<td>10:00</td>
</tr>
<tr>
<td>Round 2 Window 2</td>
<td>17:00</td>
<td>10:00</td>
</tr>
</tbody>
</table>

Bidding Results
No information available.

Go to: OASIS Announcements, My Bidding Activities, Overall BOSS Results

Enrolments
You have no enrolment in this term.

Exemptions/Credit Transfers
How to find the courses offered in 2 specific course areas? (cont’d)

BOSS > Class Search

Class Search for Last Academic Year

- **Course Career**: Undergraduate
- **Subject Area**: 
- **Course Title**: Please input a title or part of a title with a wildcard %.
- **Course Area**: 
  - *Tip: Select 2 course areas to return courses cross-listed in both*

[Search Button]
How to find the courses offered in 2 specific course areas?  

(Cont’d)

BOSS > Class Search

<table>
<thead>
<tr>
<th>Course Career</th>
<th>Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Area</td>
<td></td>
</tr>
<tr>
<td>Course Area</td>
<td>Business-Oriented Electives</td>
</tr>
<tr>
<td></td>
<td>Business Core</td>
</tr>
<tr>
<td></td>
<td>Business Options</td>
</tr>
<tr>
<td></td>
<td>Business Subjects</td>
</tr>
<tr>
<td></td>
<td>Capstone Seminar</td>
</tr>
<tr>
<td></td>
<td>Career Skills</td>
</tr>
<tr>
<td>Catalogue No</td>
<td>E.g. 101</td>
</tr>
</tbody>
</table>

Select:
- Business-Oriented Electives
- Marketing Major
How to find the courses offered in 2 specific course areas? (cont’d)

BOSS > Class Search

Class Search for Last Academic Year

Course Career: Undergraduate
Subject Area
Course Title: Please input a title or part of a title with a wildcard %
Course Area: 2 items checked
Catalogue No: E.g. 101

Reset  Search

MKTG102 - Consumer Behaviour
MKTG103 - Marketing Research
MKTG200 - Service Experience Design and Management
MKTG204 - Services Marketing
MKTG205 - Advertising
MKTG207 - Marketing Strategy
MKTG217 - Strategic Brand Management
MKTG219 - Retail Management
MKTG224 - World Travel & Tourism
MKTG225 - Customer Relationship Management
MKTG227 - Integrated Marketing Communications: A Brand Perspective
MKTG228 - Marketing Analytics
MKTG313 - Pricing
How to check for course areas and pre- or co-requisites? (cont’d)

BOSS > Class Search

- Course Career: Undergraduate
- Subject Area
- Course Title: Please input a title or part of a title with a wildcard %
- Course Area: 2 items checked

Search results for MKTG207 - Marketing Strategy:
How to check for course areas and pre- or co-requisites? (cont’d)

BOSS > Class Search

**COURSE DESCRIPTION**

The course is structured to provide students with an understanding of the critical elements of marketing strategy that gears firms towards creating, communicating, and delivering value to customers as well as devising means to appropriate value for the firm. Thus, the course aims to look at all elements of a firm’s marketing program from a strategic lens that takes both a short-term and a long-term perspective on managerial marketing decision making. An extensive amount of tacit learning is involved in devising and implementing marketing strategy, the course will place students in near real world situation with the use of cases and MARKSTRAT simulation and prod the students to make decisions and defend the decisions in oral and written formats.

**MEETING INFORMATION**

<table>
<thead>
<tr>
<th>Type</th>
<th>Start Date</th>
<th>End Date</th>
<th>Day</th>
<th>Start Time</th>
<th>End Time</th>
<th>Venue</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASS</td>
<td>28-Apr-2014</td>
<td>28-May-2014</td>
<td>Mon</td>
<td>12:00</td>
<td>15:15</td>
<td>LKCSB Seminar Rm 3.5</td>
<td>LEE PUI YEE, MICHELLE</td>
</tr>
<tr>
<td>CLASS</td>
<td>28-Apr-2014</td>
<td>28-May-2014</td>
<td>Wed</td>
<td>12:00</td>
<td>15:15</td>
<td>LKCSB Seminar Rm 3.5</td>
<td>LEE PUI YEE, MICHELLE</td>
</tr>
<tr>
<td>CLASS</td>
<td>28-Apr-2014</td>
<td>28-May-2014</td>
<td>Fri</td>
<td>12:00</td>
<td>15:15</td>
<td>LKCSB Seminar Rm 3.5</td>
<td>LEE PUI YEE, MICHELLE</td>
</tr>
</tbody>
</table>

**COURSE AREAS**

The course area(s) mentioned below, if any, serve only as a generic guide to the possible area(s) this course may fall under. Undergraduate students must verify the actual mapping of the course areas by updating their curriculum worksheet and running the degree progress report (Course List What-If) before bidding/enrolling for the course.

- Marketing Major
- Business Options
- Major Related in Economics
- Business-Oriented Electives
- Social Sciences Major-related

**ENROLMENT REQUIREMENTS**

- Pre-Requisite: Marketing

**Second Major Requirements**

**Degree Requirements**
How to find the courses that will be offered in Term 1/2/3A/3B?

OASIS > Study > Courses & Schedules >> Course Offerings

Course Offerings for 2014-15

Please use the Course Catalogue/Course Search to get class schedule and course outlines (not all are available).

- School of Accountancy - Coming Soon
- Lee Kong Chan School of Business - Coming Soon
- School of Economics - Coming Soon
- School of Social Sciences - Coming Soon
- School of Information Systems - Coming Soon
- School of Law - Updated 3 Apr 2014

Course Offerings for 2013-14

- School of Accountancy - Updated 22 Oct 2013
- Lee Kong Chan School of Business - Updated 23 Mar 2014
- School of Economics - Updated 18 Nov 2013
- School of Social Sciences - Updated 18 Feb 2014
- School of Information Systems - Updated 20 Sept 2013
- School of Law - Updated 8 Feb 2014
NOTE!

- Do not assume that you can secure the courses that allow double-counting as these courses are usually very popular and oversubscribed.

- Do not plan to do your 2nd major electives during Term 3A/3B. Courses listed as offered in Term 3 may be changed/cancelled.

- Do not place very high bids on double-counting courses because you may end up with zero or insufficient e$ to bid for your remaining courses in that term and subsequent terms. This will create more bidding problems for yourself in future.

- If you are unable to secure the double-counting course(s), you will need to make provisions to take 2 CUs instead of 1 CU (since you cannot take 1 CU to double-count). For example, GRS and Marketing elective, you need to take 2 CUs = 1 CU for GRS and 1 CU for Marketing elective.
Understanding your Degree Progress Report

> Minimum Overall Course Units

<table>
<thead>
<tr>
<th>Programme(s) Enrolled: BSc (ISM):Finance (Single Degree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>BSc (Information Systems Mgmt)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Overall Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency Requirement</td>
<td>✓</td>
</tr>
<tr>
<td>Minimum Course Units at SMU</td>
<td>✓</td>
</tr>
<tr>
<td>CUs (Required/Earned/Outstanding): 20.00 / 22.50 / 0.00</td>
<td>✓</td>
</tr>
<tr>
<td>Minimum Overall Course Units and Cumulative GPA Requirement (LLB Students: Please check unofficial transcript for LLB GPA)</td>
<td>×</td>
</tr>
<tr>
<td>BScISM-AnyBus(2ndMaj)exOM/QF</td>
<td>×</td>
</tr>
<tr>
<td>Minimum Overall Course Units required - 38 CUs</td>
<td>×</td>
</tr>
<tr>
<td>CUs (Required/Earned/Outstanding): 38.00 / 24.50 / 13.50</td>
<td>✓</td>
</tr>
<tr>
<td>BScISM-AnyBus(2ndMaj)exOM/QF</td>
<td>✓</td>
</tr>
<tr>
<td>GPA (Minimum/Earned): 2.00 / 3.94</td>
<td>✓</td>
</tr>
</tbody>
</table>
# Understanding your Degree Progress Report

**Showing Double Counting Courses**

<table>
<thead>
<tr>
<th>Marketing - 2nd Major</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marketing Major Compulsory</strong></td>
</tr>
<tr>
<td>CU's (Required/Earned/Outstanding): 5.00 / 5.00 / 0.00</td>
</tr>
<tr>
<td>1112 T1</td>
</tr>
<tr>
<td>1011 T3A</td>
</tr>
<tr>
<td>1011 T2</td>
</tr>
<tr>
<td>1011 T2</td>
</tr>
<tr>
<td>1213 T1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marketing Major Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU's (Required/Earned/Outstanding): 3.00 / 3.00 / 0.00</td>
</tr>
<tr>
<td>1213 T1</td>
</tr>
<tr>
<td>1011 T3B</td>
</tr>
<tr>
<td>1112 T1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Oriented Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compulsory courses</strong></td>
</tr>
<tr>
<td>CU's (Required/Earned/Outstanding): 2.00 / 2.00 / 0.00</td>
</tr>
<tr>
<td>1011 T1</td>
</tr>
<tr>
<td>0910 T1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Elective courses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CU's (Required/Earned/Outstanding): 4.00 / 4.00 / 0.00</td>
</tr>
<tr>
<td>1112 T1</td>
</tr>
<tr>
<td>1213 T1</td>
</tr>
<tr>
<td>1213 T1</td>
</tr>
<tr>
<td>1011 T3B</td>
</tr>
</tbody>
</table>
### Understanding your Degree Progress Report

> Showing Double Counting Courses

#### Marketing - 2nd Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1112 T1</td>
<td>MKTG 102 Consumer Behaviour</td>
<td>1.00</td>
</tr>
<tr>
<td>1011 T3A</td>
<td>FNCE 101 Finance</td>
<td>1.00</td>
</tr>
<tr>
<td>1011 T2</td>
<td>ACCT 101 Financial Accounting</td>
<td>1.00</td>
</tr>
<tr>
<td>1011 T2</td>
<td>MKTG 101 Marketing</td>
<td>1.00</td>
</tr>
<tr>
<td>1213 T1</td>
<td>MKTG 103 Marketing Research</td>
<td>1.00</td>
</tr>
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</table>

#### Marketing Major Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1213 T1</td>
<td>MKTG 219 Retail Management</td>
<td>1.00</td>
</tr>
<tr>
<td>1011 T3B</td>
<td>MKTG 204 Services Marketing</td>
<td>1.00</td>
</tr>
<tr>
<td>1112 T1</td>
<td>MKTG .224 World Travel &amp; Tourism</td>
<td>1.00</td>
</tr>
</tbody>
</table>

#### Global and Regional Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1011 T3A</td>
<td>MGMT 303 Knowledge Governance: Policies &amp; Strategies for Managing Knowledge-based Economies in Southeast Asia</td>
<td>1.00</td>
</tr>
<tr>
<td>1112 T1</td>
<td>MKTG .224 World Travel &amp; Tourism</td>
<td>1.00</td>
</tr>
</tbody>
</table>
NOTE!

- Please refer to our 2\textsuperscript{nd} major wiki for more information on double-counting and other FAQs [https://wiki.smu.edu.sg/sis/Second_Major](https://wiki.smu.edu.sg/sis/Second_Major)

- Use our SIS curriculum planning template to help you with your academic progression planning. Download it from our 2\textsuperscript{nd} Major wiki or from [http://blue.smu.edu.sg/2major/](http://blue.smu.edu.sg/2major/)

- Always use the curriculum planning template concurrently with your degree progress report to help you understand your academic progression better

- Please email our SIS School Managers if you need help with your curriculum planning:

  Jeandie LIM, Sophia HENG, Dave CHUA
  sis_ugrad@smu.edu.sg
Talk to Us
Look for the Professors of the ABT tracks and Analytics 2\textsuperscript{nd} Major

- ABT (ESS Track) – Prof Venky S.
- ABT (Technopreneurship Track) – Prof Desai N.
- ABT (BPT Track) – Prof Alan MEGARGEL
- ABT (ISA Track) – Prof DING Xuhua
- ABT (without track) - Prof Venky S.
- 2\textsuperscript{nd} Major in Analytics – Prof Seema CHOKSHI/Prof Prakash Chandra SUKHWAL
- For course planning enquiries, please email your planning template to us and we will reply asap
SIS Undergraduate matters – sis_ugrad@smu.edu.sg