Major Program Selection
Information Systems – An enriching path of study and career
BBA in Information Systems
Benjamin Huber

- BBA(IS) Class of 2016 Graduate, HKUST
- Security consultant at Handshake Networking Ltd
- Former Chairperson for ISACA Student Group, HKUST
- World No. 1 in 2014 June CISA Exam
- Placement in EY IT Risk and Assurance
What is BBA in Information Systems?

The first question comes to your head
Program Highlights

• Fundamental knowledge in the essential operations of a company and organization

• Analytical competence to design, analyze, implement, and manage information systems required by different business sectors

• Master state-of-the-art and leading-edge technologies in the industry
Program Highlights

• Prepare students for professional qualifications

• Application of IT management knowledge in real business projects

• Opportunities to join professional 1-year or vacation internship programs

• Curriculum aligned with ISACA Mode Curriculum

• **New option of Business Analytics**

• **New option of Information Systems Auditing**
Program Objectives

- Flexible structure and career choices with multiple streams of career paths – e.g.
  - IS auditing and security
  - Technology and innovation management
  - Technology Entrepreneurship
  - Big Data and Business Analytics and Business Intelligence
  - Social Media & E-Commerce
  - Business analysis and consulting in IS development, management, and business integration
IS? IT? What if...?

You must have some concerns
Your Concerns...

- Information Systems in Business – BBA(IS) vs. Computer Science in Engineering – BEng(CS)
- Business-oriented training vs. Technology-oriented training
- Prior Computer / programming knowledge Prior HKCEE CS / IT or HKALE CS / CA knowledge
BEng(CS) vs. BBA(IS)

• BEng(CS)
  – Emphasizes technical aspects of hardware and software design, i.e., how to **develop** the tools
  – Mathematical analysis of algorithms and theories of computing

• BBA(IS)
  – On top of technical knowledge, BBA(IS) emphasizes the application of computing technologies in businesses, i.e., how to **apply** and manage the tools
  – The ability to understand and apply appropriate technologies to solve business or organizational problems, or to advise those who supervise such activities
  – More interaction with end-users
Computer Programming

- Prior programming background is not required

- The BBA(IS) program does **not** assume students have prior computer knowledge
  - Programming
  - Networking
  - Database
Okay! Could you tell me what will I learn?

Courses? Focuses?
<table>
<thead>
<tr>
<th>First / Second Year</th>
<th>Third / Fourth Year</th>
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<tbody>
<tr>
<td>• University Common Core</td>
<td>IS Required Courses (10 credits)</td>
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<tr>
<td>• University English Language Requirement</td>
<td>• Business Applications Programming or Internet Applications Development or Data Mining for Business Analytics</td>
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<tr>
<td>• School Requirements</td>
<td>• IS Analysis and Design</td>
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<td>• Database Design &amp; Administration</td>
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<td>IS Electives (minimum 10 credits)</td>
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<td>• Innovation Management &amp; Technology Entrepreneurship</td>
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<td>• e-Business Management and Web Analytics</td>
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<td>• IS Auditing and Security</td>
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<td>• IS Control and Assurance</td>
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<td>• Business Simulation and Strategic Decisions</td>
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<td>• Big Data Technologies</td>
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<td>• Information Systems Project Management</td>
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<td>• Telecom &amp; Computer Networking Management</td>
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<td>• Advanced Network Management</td>
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<td>• Final Year Project</td>
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<td>School Requirements</td>
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<td></td>
<td>University Common Core</td>
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<td>Free Electives</td>
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<td>• Any courses offered by any department; or</td>
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<td>• Take all the necessary courses of another business program to claim a second major</td>
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<td>1st &amp; 2nd Year</td>
<td>3rd Year Fall</td>
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<tr>
<td>University Common Core</td>
<td>ISOM3210 IS Analysis &amp; Design (3)</td>
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<tr>
<td>University English Language Requirement</td>
<td>ISOM3230 Business Applications Programming (3), or ISOM3320 Internet Applications Development (4) (offered in winter semester), or ISOM3360 Data Mining for Business Analytics (3)</td>
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<tr>
<td>School Requirements</td>
<td>MGMT2130 (2), ISOM-IS (3), FREE</td>
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<th>3rd Year Fall</th>
<th>3rd Year Spring</th>
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<tr>
<td>ISOM3210 IS Analysis &amp; Design (3)</td>
<td>ISOM3260 Database Design &amp; Administration (4)</td>
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<tr>
<td>ISOM3230 Business Applications Programming (3), or ISOM3320 Internet Applications Development (4) (offered in winter semester), or ISOM3360 Data Mining for Business Analytics (3)</td>
<td>LABU2020 (2), ISOM-IS (3), Common Core (3), FREE</td>
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<td>MGMT2130 (2), ISOM-IS (3), FREE</td>
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<th>4th Year Fall</th>
<th>4th Year Spring</th>
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<td>ISOM-IS (4), Common Core, FREE</td>
<td>Common Core, FREE</td>
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<th>IS Elective Courses Available</th>
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<tr>
<td>ISOM3010 Information Systems Project Management (3)</td>
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<td>ISOM3100 Business Simulation &amp; Strategic Decisions (3)</td>
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<td>ISOM3310 e-Business Management &amp; Web Analytics (3)</td>
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<td>ISOM3370 Big Data Technologies (3)</td>
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<td>ISOM4020 Innovation Management &amp; Technology Entrepreneurship (3)</td>
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<tr>
<td>ISOM3180 Telecom &amp; Computer Networking Management (3)</td>
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<td>ISOM3380 Cisco - ICND (4)</td>
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<tr>
<td>ISOM4100 IS Auditing &amp; Security (3)</td>
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<tr>
<td>ISOM4300 IS Control &amp; Assurance (3)</td>
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<td>ISOM4400 IS Project (6)</td>
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Industry Collaborations

- The offering of **Cisco** courses in collaboration with Cisco Systems’ Network Academy Program (CNAP)
  - Network Administrator (CCNA) and
  - Cisco Certified Network Professional (CCNP) examinations

Cisco Certificate Award Ceremony
Apart from study…

Enrichment doesn’t stop here
Industry Collaborations

- Collaborations with companies for **internship** programs and final year projects
- Latest development:
  Aligned with the ISACA Model Curriculum
One-Year Internship

- For students who have completed 3rd year of study

- Selected students are granted 1-year leave to join companies as student interns in IS functions

- To get a sense of what an IS career is all about and fine-tune career goal

- To gain practical work experience not available in classroom, and enrich graduation CV
Exposure in Industries
Final Year Project

• To equip students for their future career, the IS program provides opportunities for students to complete a year-long project in a real business setting for an external company during their final year of study.

• By bridging the classroom and corporate workplace, students are given the opportunities to integrate their IS knowledge and advance IS research in a real-life business.
Final Year Projects

- HKUST Course Enquiry System
- Mobile Applications
  - FitDress
  - HangOut! *A Combination of Information and Networking Specially Designed for Convenient and Fun Social Dinning Experience*
  - The HK Map Master *A Specialized Hiking App for HK People*
- Financial Need Analysis System of an IFA company
Employer Feedbacks

- Have versatile technical skills. Communicate effectively with users and IT community.

- Logical thinking. Good technical background. Fast adaptation to new environment.

- Good in UNIX and SQL. Good in Quality Programming. Creative thinking.
Employer Feedbacks

• Excellent problem solving skills

• Good coordination and communication skills. Able to raise ideas in order to do the task in effective and accurate way
Sounds great! So will I be a professional?

This is not only a bachelor degree
New option in Business Analytics

- To incorporate the huge demand for talents in business intelligence / big data / data analysis, a new option of Business Analytics has been introduced from 2016 – 2017 academic year. The new option focuses on developing students with deep analytical skills, and to use the analysis of big data to make effective decisions.
IS Major Required Courses

- ISOM3210 Information Systems Analysis and Design
- ISOM3230 Business Applications Programming
  - OR ISOM3320 Internet Applications Development
- ISOM3260 Database Design and Administration

Option Required Courses

- ISOM3360 Data Mining for Business Analytics
- ISOM3900 Decision Analytics

Recommended IS Electives (total 10 credits)

- ISOM3010 Information Systems Project Management
- ISOM3310 e-Business Management and Web Analytics
- ISOM3320 Internet Applications Development
- ISOM3370 Big Data Technologies
- ISOM4400 Information Systems Project (with a Business Analytics theme)

(Note: Courses taken as Option Required Courses cannot be counted towards the IS elective requirement.)
New option in BA – enhancement

What is progress to enhance the BA curriculum

In the future, it is possible for BA students to double count some of the courses taken in BA curriculum in order to fulfill the requirement for a minor in “Big Data Technologies” offered by computer science department, HKUST.
New option in Information Systems Auditing

- The department has also developed new options in “IT auditing” to keep up with the industry pace and cultivate students with latest IS technology and skills which are highly demanded in workplace.
New option in ISA

**IS Major Required Courses**
- ISOM3210 Information Systems Analysis and Design
- ISOM3230 Business Applications Programming
  - OR ISOM3320 Internet Applications Development
  - OR ISOM3360 Data Mining for Business Analytics
- ISOM3260 Database Design and Administration

**Option Required Courses**
- ISOM4100 Information Systems Auditing and Security
- ISOM4300 Information Systems Control and Assurance

**Recommended IS Electives Courses (total 10 credits)**

*(Note: Courses taken as Option Required Courses cannot be counted towards the IS elective requirement.)*
Alignment with ISACA Model Curriculum for Information Systems Major
ISACA Model Curriculum

Professional Qualification and HKUST...

- Professional Accounting
  - Certified Public Accountants of HKICPA QP & ACCA (CPA)

- Finance
  - Certified Financial Analyst (CFA)

- Information Systems
  - Certified Information Systems Auditor (CISA)
ISACA Model Curriculum

Certified Information Systems Auditor...

- Developed and sponsored by ISACA, its founding organization
- One of the required professional certification for IS Audit, Control and Security practitioners
- Recognized worldwide
HKUST BBA(IS) is the **FIRST** university program in Asia/Asia-Pacific to be in alignment with the ISACA Model Curriculum.

- Provides students with better career opportunities and advancement.

- 3-4 years’ experience **waiver** towards the 5-year requirement of CISA qualification.
ISACA Model Curriculum

Other Degree Programs
(2 years experience waiver)

1 Year Relevant Working Experience

2 Years Relevant Working Experience

1 Year Internship

BBA (Information Systems)
(3 years experience waiver)

2 years faster!
ISACA Model Curriculum

• Students Achievement on CISA exam
  – One of our IS students, Benjamin Huber have earned the highest score in the world on the June 2014 CISA examination.

  – Some students achieved world top 20%, some achieved world top 10% or even top 5%.
ISACA Model Curriculum

Course Requirements...

- **3 Fundamental Required Courses**
  - ISOM 3210 – Information Systems Analysis and Design
  - ISOM 3230 – Business Applications Programming, or
    ISOM 3320 – Internet Applications Development, or
    ISOM 3360 – Data Mining for Business Analytics
  - ISOM 3260 – Database Design and Administrator

- **3 ISACA Model Curriculum Required Courses**
  - ISOM 4300 – Information Systems Control and Assurance
  - ISOM 4100 – Information Systems Auditing and Security
Career Prospects

**IT Audit, Control and Security**
- Project management
- Independent Consultant
- IT risk management
- Security analyst
- IT Auditor

- IT Audit - **Dual** professional qualification in CISA and CPA (For IT Auditor Hired by CPA Firm)
HKUST Business School was chosen for the “Merit Award” for the 2017 IT Governance Achievement Awards (Public Sector), hosted by ISACA China HK Chapter, on March 16, 2017.
香港IT管治成就大獎
嘉許在香港IT管治實踐中具有傑出成就的機構

香港IT管治成就大獎旨在資識識香港IT管治實踐中具有傑出成就的公眾及私營機構，表揚其在業界領先的業績及貢獻。此獎項嘉許的機構包括香港科技大學管治學院和中國科學院（香港分院）有限公司。獲獎機構包括香港科技大學管治學院和中國科學院（香港分院）有限公司。自一九九九年創建的ISACA香港管治委員會已成為香港IT業界的重要力量，嘉許IT管治中的傑出成就。

盡管獎項設定在業界領先的業績及貢獻，但嘉許的機構並不單單是這幾家。獲獎機構包括香港科技大學管治學院和中國科學院（香港分院）有限公司。自一九九九年創建的ISACA香港管治委員會已成為香港IT業界的重要力量，嘉許IT管治中的傑出成就。

嘉許的機構包括香港科技大學管治學院和中國科學院（香港分院）有限公司。自一九九九年創建的ISACA香港管治委員會已成為香港IT業界的重要力量，嘉許IT管治中的傑出成就。

ISACA香港管治委員會的成員包括來自香港科技大學管治學院和中國科學院（香港分院）有限公司的專家。他們以獨立和客觀的視角，對香港IT業界的業績及貢獻進行評估，嘉許嘉許IT管治中的傑出成就。

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ICASA Student Group

- Close contact with ICASA HK Chapter
- Organize Annual Case Competition

Champion – HKUST

2nd Runner-up – HKUST

Now comes to the Q&A session
Further Information

- Department website at http://www.bm.ust.hk/isom
- UG coordinator: percy@ust.hk, room: 4037, LSK Building, phone: 2358 7654
- For further inquiries about the BBA-IS program, please email to bbais@ust.hk

- ISACA Model Curriculum website at http://www.bm.ust.hk/isom/isaudit
- For further inquiries about the ISACA Model Curriculum, please email to isaudit@ust.hk