2012 INDUCTION PROGRAMME
BEng(CompSc)
Computer science is not just about programming and studying the computers, but rather it is about **problem solving** – *the study of algorithms and information representation to make productive use of computing technologies.*
PROGRAMME STRUCTURE

Free Electives = 7

- Mathematics
- Programming
- Data Structures
- Analysis of Algorithms
- Database Systems
- Machine Organization
- Operating Systems
- Computer Networks
- Software Engineering

- UG5 Requirements 22%
- Faculty Common Core 15%
- CS Core 30%
- CS Elective 12%
- Electives 18%
- Internship 3%

Mathematics, Physics, Programming, and General Engineering
PROGRAMME HIGHLIGHT

- **Flexibility**
  - Students can select electives from a wide variety of courses
  - Can use the credits to satisfy the minor programme or some courses under the double degree or 2nd major programme

- **Accreditation**
  - The programme is accredited by the Hong Kong Institution of Engineers (HKIE)

- **Internship**
  - Students may spend 8-12 weeks (during summer) to 1 year of paid work experience and professional development in the industry

- **Final year project**
  - Students may choose amongst research-based projects, software development projects, and industry-based projects as their Capstone Experience.

- **Research opportunity**
  - Outstanding students are having the opportunities to undertake research under the University Research Fellowship Programme.
## Recommended Course Enrollment

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH1851 or MATH1853</strong></td>
<td><strong>MATH1851 or MATH1853</strong></td>
</tr>
<tr>
<td>Calculus and ordinary differential equations</td>
<td>Calculus and ordinary differential equations</td>
</tr>
<tr>
<td>Or Linear algebra, probability and statistics</td>
<td>Or Linear algebra, probability and statistics</td>
</tr>
<tr>
<td><strong>PHYS1050</strong></td>
<td><strong>ENGG1111</strong></td>
</tr>
<tr>
<td>Physics for engineering students</td>
<td></td>
</tr>
<tr>
<td><strong>CAES1000</strong></td>
<td><strong>ENGG1202</strong></td>
</tr>
<tr>
<td>Core University</td>
<td>Introduction to computer science</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Two UCC courses</strong></td>
<td><strong>One general engineering course from this list:</strong></td>
</tr>
<tr>
<td></td>
<td>ENGG1201, ENGG1203, ENGG1204, ENGG1205, &amp; ENGG1206</td>
</tr>
<tr>
<td><strong>One UCC course</strong></td>
<td></td>
</tr>
</tbody>
</table>

*ENGG1111 (2\textsuperscript{nd} sem) = ENGG1112 (1\textsuperscript{st} + 2\textsuperscript{nd} sem)*
The University offers a wide range of minors (and 2nd majors) to students of ALL Faculties

- Faculty of Arts
- Faculty of Business and Economics
- Faculty of Education
- Faculty of Engineering
- Faculty of Science
- Faculty of Social Science
Faculty of Science

- 2nd Majors / Minors: Mathematics, Statistics, Risk Management
- Minors: Actuarial Studies, Computational & Financial Mathematics, Physics
- prerequisites: programme’s specific requirements

Faculty of Engineering

- Minors: EEE, EnvE, GeoTech Eng, IETM, LESCM, ME, ME(BSE)
The samples serve as illustrative purpose. Beware of the pre-requisite and time-tabling issues. Students who opt for a 2nd Major or Minor are responsible for planning for their own course of studies.
CGPA AND HONOUR CLASSIFICATION

- CGPA – Cumulative GPA
  - From the first day up to this point
    \[
    GPA = \frac{\sum_{i} (\text{course grade point} \times \text{course credit value})}{\sum_{i} \text{course credit value}}
    \]
  - where “\(i\)” is the number of all passed and failed courses taken

- Classification of honours is determined in accordance with the CGPA scores of all courses attempted
  - Note: all courses carry equal weighting
    - Not using WGPA (Weighted GPA) anymore
# Honour Classification

<table>
<thead>
<tr>
<th>Class of Honours</th>
<th>CGPA Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Class Honours</td>
<td>3.60 – 4.3</td>
</tr>
<tr>
<td>Second Class Honours</td>
<td></td>
</tr>
<tr>
<td>Division One</td>
<td>3.0 – 3.59</td>
</tr>
<tr>
<td>Division Two</td>
<td>2.4 – 2.99</td>
</tr>
<tr>
<td>Third Class Honours</td>
<td>1.7 – 2.39</td>
</tr>
<tr>
<td>Pass</td>
<td>1.0 – 1.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>GP Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
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<tr>
<td>C</td>
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</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>
2011 EMPLOYMENT SURVEY

Basic Salary of HKUCS Graduates

Where did the graduates go?

- Commerce & Industry: 83%
- Further Studies: 11%
- Educational Institutions: 5%
- Civil Service: 1%

Bar chart shows the basic salary distribution for HKUCS graduates between 2010 and 2011.
# CAREER PROSPECTS

## Positions

<table>
<thead>
<tr>
<th></th>
<th>IT-related positions</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>86.5%</td>
<td>13.5%</td>
</tr>
<tr>
<td>2010</td>
<td>85.7%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

**Examples**

- Application/System/Technical Analyst
- Co-Founder/ Executive Director
- Engineer Trainee
- ICT Graduate Trainee
- iPhone Game Programmer
- IT Officer/Specialist
- Mobile Application Architect/Developer
- Product Engineer/Officer
- Programmer/Developer
- Project Executive/Officer
- Research Assistant
- Software (Development) Engineer
- System Engineer
- Technical Support Engineer
- Technology Consultant
- Account Manager
- Business Development Officer
- Executive Officer
- Graduate Trainee
- Management Trainee
- Senior Administrative Assistant
- Teacher
## CAREER PROSPECTS

### Companies

<table>
<thead>
<tr>
<th></th>
<th>IT/Technology</th>
<th>Finance/Banking</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>52%</td>
<td>28%</td>
<td>20%</td>
</tr>
<tr>
<td>2010</td>
<td>41.5%</td>
<td>30.8%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Examples</td>
<td>Apple</td>
<td>ecVision</td>
<td>Entone Technologies</td>
</tr>
</tbody>
</table>

Computer Science is very employable, not just for IT jobs but other analytical roles too because of the problem solving skills and analytical abilities we developed in the study. These skills also prove valuable to many areas of endeavor.
Programming
+ Select **ENGG1111** A or B or C class

General Engineering Courses
+ Select **ENGG1202** and another ENGG120x course

Mathematics
+ MATH1851 and MATH1853
+ One in each semester

If you are intended to
+ take the Double Degree, you should follow Faculty’s guideline and deadline on the application
+ take a Minor (or even a 2\(^{nd}\) Major), you should consult Dr. Anthony Tam
BEng(CompSc) programme

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Programme Director – Dr. Kenneth Wong
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Student Affairs

Computer Science Association