



BASc(FinTech) Programme

Introduction of the programme, its
structure, and enrollment details

Introduction to BAsSc(FinTech) Programme

- Financial Technology
 - is about application of information & communication technologies to the provision of financial services, which changes the nature of commerce and end-user expectations for financial services.
 - has a profound impact on the development of the global and local financial industries.
 - is an area with high demand of talents to support the fast-growing FinTech industry.

Introduction to BAsc(FinTech) Programme

- BAsc(FinTech) programme
 - is jointly offered by the Department of Computer Science, the Faculty of Engineering and the Faculty of Business and Economics
 - its objective is to nurture financial technologists and entrepreneurs with essential knowledge in both finance and technology
 - is an inter-disciplinary study which covers computing, finance, and legal regulations
 - requires the integration of computing technologies and financial knowledge to solve real-world problems related to financial services with the understanding on relevant legal regulations and policies
 - include soft topics from other disciplines for broadening the students' knowledge and views and prepare the students to face the fast-growing FinTech industry

Programme Learning Outcomes

Upon successful completion of the curriculum, students should be able to:

PLO a	apply knowledge of computing technologies to finance applications appropriate to the programme outcomes and to the discipline
PLO b	apply knowledge of computing technologies to the abstraction and conceptualization of financial applications
PLO c	analyze financial problems, and identify and define the computing technologies appropriate to its solution
PLO d	design, implement, and evaluate a computer-based system, process, component, or programme to solve financial applications with appropriate consideration for public health and safety, social and environmental considerations
PLO e	function effectively on teams to accomplish a common goal
PLO f	demonstrate an understanding of professional, ethical, legal, security and social issues and responsibilities
PLO g	communicate effectively with a range of audiences
PLO h	analyze the local and global impact of financial technology on individuals, organizations, and society
PLO i	recognize the need for and an ability to engage in continuing professional development
PLO j	use current techniques, skills, and tools necessary for computing practice to solve financial problems with an understanding of the limitations

University Education Aims (UEAs)

<https://tl.hku.hk/tl/>

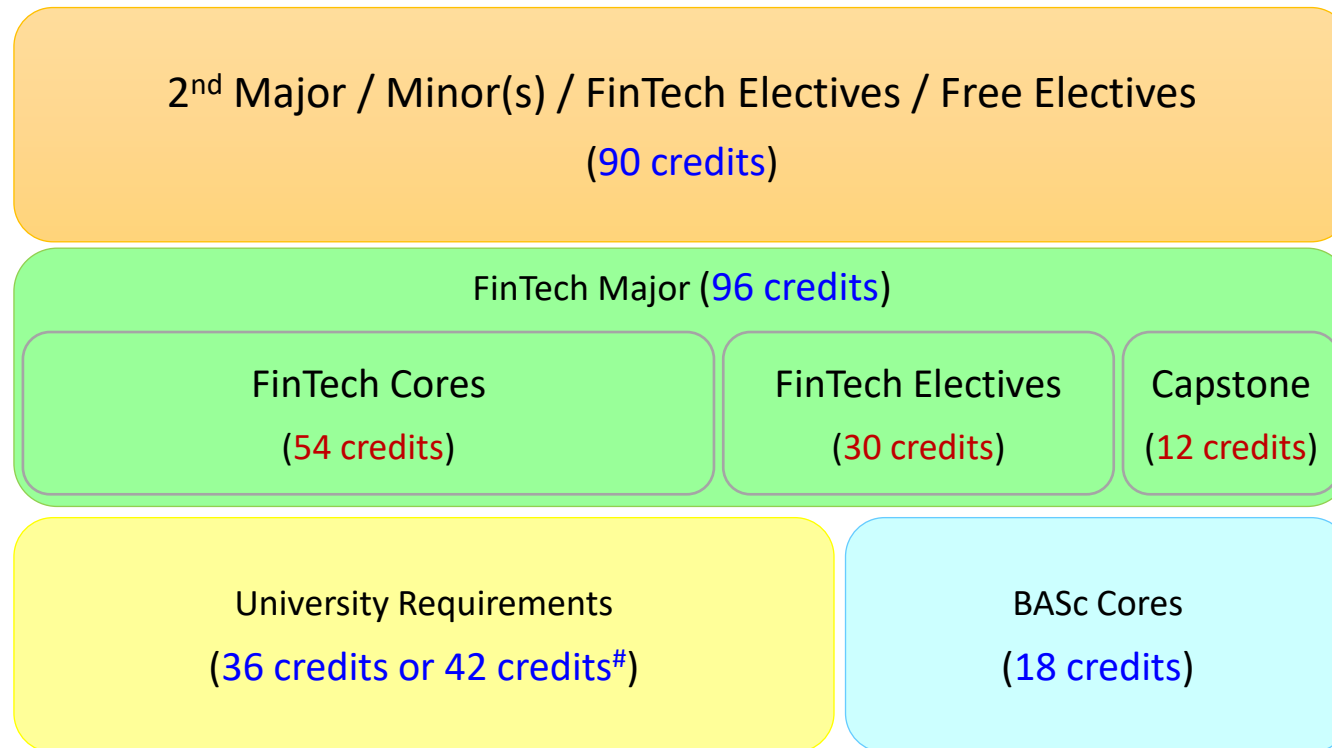
- Alongside the content knowledge students gain from their studies, HKU aims to ensure that students graduate with a defined skill set
 - Aim 1: Pursuit of **academic/professional excellence**, critical **intellectual inquiry** and **life-long learning**
 - Aim 2: **Tackling** novel situations and ill-defined **problems**
 - Aim 3: Critical **self-reflection**, greater **understanding of others**, and **upholding** personal and professional **ethics**
 - Aim 4: Intercultural communication, and **global citizenship**
 - Aim 5: **Communication and collaboration**
 - Aim 6: Leadership and advocacy for the **improvement of the human condition**

Relationship of BASc(FinTech) PLOs to HKU UEAs



HKU Educational Aims	Programme Learning Outcomes
Pursuit of academic professional excellence, critical intellectual enquiry and life-long learning	PLO a PLO b PLO c PLO d PLO i PLO j
Tackling novel situations and ill-defined problems	PLO c PLO j
Critical self-reflection, greater understanding of others, and upholding personal and professional ethics	PLO f PLO h
Intercultural understanding and global citizenship	PLO f PLO g PLO h
Communication and collaboration	PLO e PLO g
Leadership and advocacy for the improvement of the human condition	PLO d PLO e PLO h

Programme Structure



[#] Students without level 5 or above in HKDSE English Language (or equivalent) are required to take 6 additional credits in Core University English and complete 246 credits for graduation.

Programme Structure

- University Requirements
 - English in the Discipline (6 credits)
 - Chinese language (6 credits)
 - Common Core courses (**24 credits**)
 - Non-credit bearing course
 - Core University English (if required - 6 credits)
- BASc Core courses
 - Approaching Interdisciplinarity: Knowledge Beyond Disciplines (6 credits)
 - Data Science 101 (6 credits)
 - Sustainable Leadership (6 credits)
- FinTech Major
 - Core Courses (54 credits)
 - Computer programming I
 - Foundations of FinTech Programming
 - Linear algebra, probability and statistics
 - Introduction to financial technologies
 - Distributed ledger and blockchain
 - Introduction to financial accounting
 - Introductory microeconomics
 - Corporate finance
 - Regulation of financial markets
 - FinTech Elective Courses (30 credits)
 - AI, Machine Learning, Security, NLP, Big Data, E-Payment, Investment, Derivatives, IT Law, Finance Regulation, etc.
 - Capstone Project (12 credits)

University Requirements

- **Chinese course** - CENG9001 Practical Chinese for Engineering students
 - Local students - Take the course at **Year 3**
 - Putonghua-speaking students - should take CUND9002 or CUND9003 instead (recommend at **Year 1**)
 - International students - can apply for exemption for CENG9001
 - (i) either take a credit-bearing Cantonese or Putonghua language course for international students;
OR
 - (ii) take an elective course in lieu
- **Common Core courses** - total 4 courses
 - One course from each Area of Inquiry
 - (i) Science, Technology and Big Data (course code: CCSTxxxx)
 - (ii) Arts & Humanities (course code: CCHUxxxx)
 - (iii) Global Issues (course code CCGLxxxx)
 - (iv) China: Culture, State and Society (course code: CCCHxxxx)

University Requirements

- **English course** - CAES9542 Technical English for computer science
 - 1st semester **at Year 4** (**together** with the Capstone FYP course)
- **# English course** – CAES1000 Core University English
 - This course is not in the syllabus of the FinTech programme.
 - Students with HKDSE English **level 5 or above** (or equivalent) are exempted from taking CAES1000.
 - Students **without DSE level 5 or above** (or equivalent), they **are required** to take CAES1000 as supplementary credits and **complete 246 credits for graduation**.
 - You are required to take the course **at Year 1**

University Requirements

- UG5E1001 Introduction to the Constitution, the Basic Law and the National Security Law
 - A non-credit bearing course
 - An online course that adopts a self-directed learning approach
 - Students can take this course in any semester throughout their period of study
 - Further details about the course, please visit the follow site:

<https://www.cedars.hku.hk/ge/ug5e1001.html>

BASc Cores

- Total three courses
 - A requirement for all BASc students.
 - **BASC9001** Approaching Interdisciplinarity: Knowledge Beyond Disciplines - Year 1 first semester
 - **STAT1016** Data Science 101 - Year 1 second semester
 - **DESN9002** Sustainable Leadership - Year 2 first semester

1st Year Enrolment

• 1st Semester

- BASc core
 - **BASC9001 Approaching Interdisciplinarity: Knowledge Beyond Disciplines**
- One common core course
- FinTech cores
 - **ENGG1330 Computer programming I**
 - **FITE1010 Introduction to financial technologies**
 - **ECON1210 Introductory microeconomics**
- Core university English (*only for students who do not have DSE English level 5 or above or equivalent*)

Normal loading: 5 courses in each semester

You should select courses for both semesters 1 & 2 during August 20 enrollment period; however, only enroll FITE2000 in the 2nd semester add/drop period as you need to pass ENGG1330 before enrolling this course.

• 2nd Semester

- BASc core
 - **STAT1016 Data Science 101**
- One common core course
- FinTech cores
 - **FITE2000 Foundations of fintech programming**
 - **ACCT1101 Introduction to financial accounting**
- A free elective course
 - Or MATH1011 University Math I for students without DSE M1/M2 or equivalent

Sample Study Plans

- BAsc(FinTech) Academic Advising Page:
<https://www.cs.hku.hk/programmes/basc-fintech/academic-advising>
 - BAsc(FinTech)
 - BAsc(FinTech) with 2nd Major in Computer Science
 - BAsc(FinTech) with 2nd Major in Entrepreneurship Design and Innovation
 - BAsc(FinTech) with Minor in Computer Science
- 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.

Further Enquires

- BASc(FinTech) programme
 - Programme Director – Prof. Qi Liu
(First Year Advisor)
 - Email: liuqi@cs.hku.hk
 - Academic Advisor – Dr. Anthony Tam
(First Year Advisor)
 - Email: atctam@cs.hku.hk
- For enrollment issues and general enquiries, please contact CS General Office
 - Office: Rm301, Chow Yei Ching Building
Email: enroll@cs.hku.hk

Information

- Regulations and Syllabus for the degree of BAsC(FinTech)
 - <https://engg.hku.hk/Teaching-Learning/BEng-BAsC/Academic-Programmes/Regulations-Syllabuses>
- BAsC(FinTech) Web site:
 - <https://www.cs.hku.hk/fintech-home>
 - Advising Page: <https://www.cs.hku.hk/programmes/basc-fintech/academic-advising>
- First Year Experience Website
 - <https://www.fye.hku.hk/>