



- BEng in Computer Science (COMP)
- BEng in Artificial Intelligence (AI) (for 2025-26 intake or later)
- BSc in Computer Science (COSC)
- BEng in Computer Engineering (CPEG)
- BSc in Data Science and Technology (DSCT)
- BSc in Risk Management and Business Intelligence (RMBI)
- Dual Degree Program in Technology and Management
- BEng in Computer Science and BBA in General Business Management (COGBM)
- BEng in Computer Science and BBA in Economics (COECON)
- BEng in Computer Science and BBA in Finance (COFINA)
- BEng in Computer Science and BBA in Management (COMGMT)
- BEng in Computer Science and BBA in Marketing (COMARK)
- BEng in Computer Engineering and BBA in General Business Management (CPGBM)
- BEng in Computer Engineering and BBA in Economics (CPECON)
- BEng in Computer Engineering and BBA in Finance (CPFINA)
- BEng in Computer Engineering and BBA in Management (CPMGMT)
- BEng in Computer Engineering and BBA in Marketing (CPMARK)
- Extended Major in Artificial Intelligence (AI) (for 2024-25 intake or earlier)
- Extended Major in Digital Media and Creative Arts (DMCA) (for 2022-23 intake or later)
- Additional Major(s)

(Source: CSE Undergraduate Programs page)

Source: CPEG - Flexible Final Year Project Choices; - CSE Mission Statements; CSE - Undergraduate Programs; CPEG - Computer Engineering at HKUST; COMP - Comprehensive Academic Program; CPEG - Benefit from Two Departments; COMP - Broad Spectrum of Minor Programs; CPEG- Final Year Project Topics; CPEG - Career Path Differences: CPEG vs CSE; COSC - What is COSC?

compare them

BEng in Computer Science (COMP) BEng in Artificial Intelligence (AI) (for 2025-26 intake or later) BSc in Computer Science (COSC) BEng in Computer Engineering (CPEG) BSc in Data Science and Technology (DSCT) BSc in Risk Management and Business Intelligence (RMBI)

# © Comparison of Programs in CSE Department at HKUST

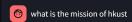
- 1. BEng in Computer Science (COMP)
  - Focus: Fundamental science and programming technology
  - $\circ \quad \textbf{Emphasis:} \ \textbf{Basic knowledge, general, and specialized software applications}$
  - o Description: Offers a broad Computer Science education with flexibility. Double major possible, but requirements may be complicated.
- 2. BEng in Artificial Intelligence (AI)
  - o Availability: For 2025-26 intake or later
  - o Focus: Specialized in Artificial Intelligence
  - Description: Provides in-depth knowledge and skills in AI technologies and applications. Students can freely choose between COMP and AI
    by the end of the first academic year.
- 3. BSc in Computer Science (COSC)
  - o **Designed for:** Double majors

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	Program	Focus	Description		
	BEng in Computer Science (COMP)	Fundamental science and programming tech	Broad Computer Science education with flexibility. Double major possible.		
	BEng in Artificial Intelligence (AI)	Specialized in Al	In-depth knowledge and skills in AI technologies and applications. Students can choose between COMP and AI.		
	BSc in Computer Science (COSC)	Designed for double majors	Tailored for students interested in double majors. Offers comprehensive Computer Science education with flexibility.		
	BEng in Computer Engineering (CPEG)	Bridges software and hardware programs	Provides knowledge in software and hardware aspects, preparing students for challenges in Computer Engineering.		
	BSc in Data Science and Technology	Focus on Data Science and Technology	Specialized education in data science, covering data analysis, machine learning, and related technologies.		
	BSc in Risk Management and Business Intelligence	Focus on Risk Management and Business Intelligence	Provides knowledge in risk management, data analytics, and business intelligence for informed decision-making.		

For more detailed information on each program, admission requirements, and curriculum, please visit the CSE Undergraduate Programs page.

(Source: CSE Undergraduate Programs page)



#### Mission of HKUST

The mission of The Hong Kong University of Science and Technology (HKUST) is to advance learning and knowledge through teaching and research, particularly in science, technology, engineering, management, and business studies. The university aims to assist in the economic and social development of Hong Kong by offering postgraduate-level education and contributing to the growth of the region. HKUST strives to be a leading university with significant international impact and a strong commitment to the local community.

For more information on HKUST's mission and vision, please visit the official  $\underline{\sf HKUST}$  About  $\underline{\sf page}$ .

(Source: HKUST About page)

Source: HKUST - Mission & Vision; HKUST - Core Value: Global Vision and Local Commitment; HKUST - HKUST Core Value: 1-HKUST; HKUST - HKUST Story: Our Beginning; RMBI - World-class Academic Innovators; HKUST - Core Value: Excellence, Integrity, and Academic Freedom; HKUST - About HKUST; HKUST - HKUST Core Value: Can-do Spirit; HKUST - HKUST Core Value: Inclusiveness, Diversity, and Respect; CSE - Welcome from Head of CSF



#### HKUST Global Impact Ranking 2024

- Global Rank: #19
  - No. 1 in Hong Kong
  - Source: Times Higher Education (THE) Impact Rankings 2024

HKUST is globally ranked at #19 and holds the top position in Hong Kong according to the Times Higher Education (THE) Impact Rankings for 2024.

For more information on HKUST's rankings and achievements, you can visit the official <u>HKUST Global Impact Ranking 2024</u> section in the provided context

(Source: [Times Higher Education (THE) Impact Rankings 2024])

Source: HKUST - HKUST: THE Impact Rankings 2024; CSE - Fast Facts; HKUST - Core Value: Excellence, Integrity, and Academic Freedom; HKUST - About HKUST; HKUST - HKUST Core Value: 1-HKUST; RMBI - World-class Academic Innovators; COMP - Career Prospect and Employment; HKUST - HKUST - Core Value: Global Vision and Local Commitment; HKUST - HKUST: Kellogg-HKUST EMBA Joint Programs



## QS World University Rankings for HKUST

- Mathematics (QS 2025)
  - o Global Rank: #43 (Top 600)
  - \*\*No. 3 in Hong Kong
  - o \*\*No. 5 in Greater China
  - o \*\*No. 9 in Asia
- Computer Science & Information Systems (QS 2025)
  - o Global Rank: #24 (Top 850)
  - ∘ \*\*No. 2 in Hong Kong
  - o \*\*No. 5 in Greater China
  - o \*\*No. 7 in Asia
- Social Sciences & Management (QS 2025)
  - o Global Rank: #54 (Top 550+)
  - ° \*\*No. 3 in Hong Kong
  - o \*\*No. 6 in Greater China

- any deep learning course?
- Deep Learning Courses in CSE Department at HKUST
  - 1. COMP 4471 Deep Learning in Computer Vision (3 credits)
    - Description: Covers basics and applications of deep learning in computer vision. Topics include convolutional neural networks, recurrent neural networks, end-to-end optimization, and deep learning approaches for computer vision tasks.
    - Prerequisites: COMP 2011 OR COMP 2012 OR COMP 2012H AND MATH 2111 OR MATH 2121 OR MATH 2131 OR MATH 2350
  - 2. COMP 4211 Machine Learning (3 credits)
    - Description: Provides comprehensive coverage of machine learning, including traditional algorithms, neural networks, and applications in computer vision, natural language processing, and generative modeling.
    - Prerequisites: COMP 2012 OR COMP 2012H AND ELEC 2600 OR IEDA 2520 OR IEDA 2540 OR ISOM 2500 OR LIFS 3150 OR MATH 2411 OR
       MATH 2421 OR MATH 2431
    - Exclusions: COMP 5212
  - 3. COMP 4222 Machine Learning with Structured Data (3 credits)
    - Description: Introduces statistical machine learning algorithms for structured data like text sequences, graphs, and relational databases.
       Focuses on practical problems and implementation using Python.
    - Prerequisites: COMP 2011 OR COMP 2012 OR COMP 2012H AND COMP 2711 OR COMP 2711H OR MATH 2343 AND MATH 2111 OR MATH 2121
       OR MATH 2131

For more information on deep learning courses, prerequisites, and detailed course descriptions, please visit the <a href="SEE Undergraduate Programs">SEE Undergraduate Programs</a> <a href="Page">Page</a>.

(Source: CSE Undergraduate Programs page)

Source: COMP 4471 Deep Learning in Computer Vision; COMP 4211 Machine Learning; COMP 2211 Exploring Artificial Intelligence; COMP 1944
Artificial Intelligence Ethics; COMP 4222 Machine Learning with Structured Data; COMP 4331 Data Mining; COMP 3211 Fundamentals of Artificial Intelligence; COMP - Comprehensive Academic Program; COMP 1942 Exploring and Visualizing Data; BEng in Al - BEng in Artificial Intelligence (Al) - Program Overview

what job can i get after study the Data Science course

### Job Opportunities in Data Science Field

After studying the Data Science course, graduates can explore various job opportunities in sectors such as IT, engineering, finance, management, sales, and more. Some common job roles and career paths include:

- 1. Data Scientist: Analyzing complex datasets to extract insights and drive decision-making processes.
- 2. Data Analyst: Collecting, processing, and analyzing data to help organizations make informed decisions.
- 3. Machine Learning Engineer: Developing and deploying machine learning models for predictive analytics.
- $\textbf{4.} \quad \textbf{Business Intelligence Analyst:} \ \textbf{Transforming data into actionable insights for business strategies}.$
- 5. Data Engineer: Designing and building data pipelines to support data processing and analysis.
- 6. Al Specialist: Implementing artificial intelligence solutions for various applications.
- 7. Data Visualization Specialist: Creating visual representations of data to communicate insights effectively.
- $\textbf{8.} \quad \textbf{Quantitative Analyst:} \ \textbf{Applying statistical} \ \textbf{and mathematical models to financial} \ \textbf{and risk management}.$

These roles offer diverse opportunities for career growth and development in the rapidly evolving field of data science.

For more information on specific job prospects, duties, and promotion opportunities in the data science field, please refer to the <u>Career Prospect</u> and <u>Employment</u> section in the provided context.

(Source: [Career Prospect and Employment])

Source: DSCT - Career Prospects; DSCT - Student Sharing about Career Prospect; DSCT - Program Overview; CPEG - Career Opportunities; DSCT - Intended Learning Outcomes; CPEG - Types of Jobs, Duties, and Promotion Prospects; COMP - Career Prospect and Employment; COMP 1942

Exploring and Visualizing Data; CPEG - More Job Opportunities; CPEG - Further Study Possibilities