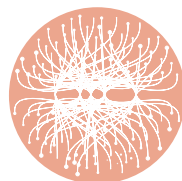


BSc in Data Analytics and Artificial Intelligence in Science (DASC)

In this big data era, an enormous amount of data is continuously generated and obtained in almost every science, technology, and social science field. Data Analytics and Artificial Intelligence in Science is a major program designed for science students who want to learn data analysis skills and practise them in various science disciplines.



Program Highlights

Recent developments in data driven techniques and artificial intelligence (AI) have make big impacts across many areas in the society. They also changed how education and research are done in different areas of science. Many scientific fields are driven by data. Consequently, science programs are ready to provide training fields for students to practice various data analytical skills. This program is not a conventional science program. Conventional science education programs focus more on data collection through experiments and observations.

This program is structured in such a way that students will be equipped to analyze, present, and draw sound conclusions from data in context, using knowledge of statistical inference, computational processes, and AI tools. This program also distinguishes itself from most other Data Science and AI programs in that students are not only trained in analytical skills. The ultimate purpose is to bring these techniques into practice in a data-intensive scientific field.

Program Curriculum

The curriculum starts with basic training in programming and computational methods, as well as analytic methods and statistics, data visualization, machine learning and AI skills. Students will then declare one of the following study tracks at the start of Year 3 to practise and sharpen their skills.

- Applied Biosciences Track
- Environmental Science Track
- Information Science Track
- Molecular Science and Cheminformatics Track

Courses in the tracks are not meant to train students to be experts in the corresponding fields, but rather to bring them into the context of a domain of data-intensive research in science.

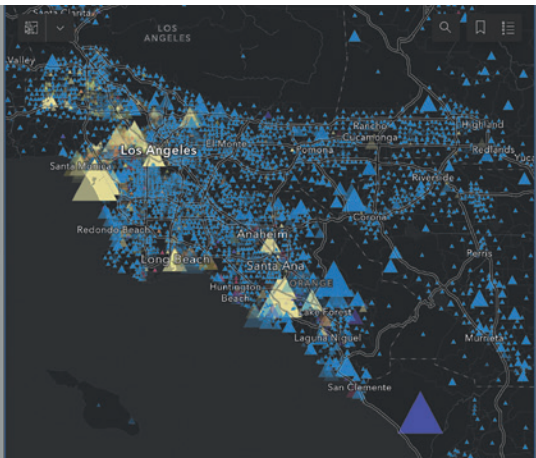
Applied Biosciences Track

Environmental Science Track

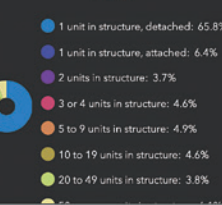
Single Family Homes by Tract

Top 50 tracts by count of single detached homes

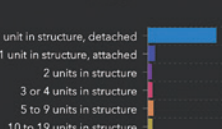
Census Tract 406.09	3,967
Census Tract 524.30	3,376
Census Tract 427.33	3,270
Census Tract 27.06	3,170
Census Tract 432.35	2,898
Census Tract 438.23	2,820
Census Tract 422.03	2,818
Census Tract 92.01	2,749
Census Tract 432.52	2,713
Census Tract 419.15	2,620
Census Tract 626.43	2,510
Census Tract 100.21	2,500
Census Tract 432.97	2,494
Census Tract 437.24	2,484



Use Map Selection to Filter



Use Map Selection to Filter



Career Prospects

We see tremendous new applications of data analytics and AI these years. In the business world, techniques from data analytics and AI help draw sharper insights into their customers, and improve the operational, manufacturing and computational efficiencies. In Fintech, data analytics and AI can effectively predict the stock price, design new financial products, detect fraud transactions, etc. Graduates with training in data analytics and AI are in extremely high demand in today's job market.



Words from DASC Student

As an international student, studying DASC at HKUST brings many new experiences to me. Its unique materials give challenging yet memorable knowledge throughout university life. In fact, we are able to learn so many things here, the subjects are so fun to learn as a science student while the professors are indeed amiable. In addition, as some of the courses are project-based grading and I got to choose my own programming projects, I learned and upgraded my programming techniques not only on my own but also from the feedback that the professor gave throughout the class. As a result, it creates my university life so much more special.

Defvan Firdy GUNAWAN

BSc in Data Analytics in Science

**Information
Science Track**

**Molecular
Science and
Cheminformatics
Track**



Admissions Requirements

Prospective students may apply for the *Science (Group A) program (JS5102)* through direct choice in the JUPAS / Non-JUPAS admissions scheme.

Upon completion of the major pre-requisite courses at the end of the first year, students can declare major in Data Analytics and Artificial Intelligence in Science.

The pre-requisite courses include :

- MATH 1013 Calculus I / MATH 1023 Honors Calculus I, and
- MATH 1014 Calculus II / MATH 1024 Honors Calculus II

JOIN DASC PROGRAM GO BEYOND YOUR LIMITS FIND TRANSFORMATION HERE

School of Science – Undergraduate Admissions

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DASC website



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