

Data Analytics in Science (DASC)

Program Overview

BSc in Data Analytics in Science (DASC) is a new major program offered by the School of Science starting from the 2021/22 academic year. The program is designed for science students who want to learn data analytical skills and practice them in various science disciplines.

We are surrounded by massive data in this big data era. A gigantic amount of data is continuously generated and obtained in almost every field in science, technology, and social science. It is therefore a major problem nowadays how to interpret and utilize these data. The program will introduce our students with various mathematical tools and will show them how to make sense of data. Students will have a chance to see how data analytics has made impacts and has revolutionized different fields in science. This program is not a conventional science program. Students will not only learn foundation science knowledge, but will also have opportunities to be equipped with competence and skills to analyze, present, and draw sound conclusions from data in context, and ultimately bring these techniques into practice in a data-intensive scientific field in science.

After having some training on fundamental data analytical techniques, students then choose ONE TRACK in the following scientific fields to practice and sharpen their skills. They include

- 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 content of a domain of data-intensive research in science.

Career Prospects

We see tremendous new applications of data analytics these years. In the business world, techniques from data analytics help draw sharper insights into their customers and daily operations. One can improve the manufacturing and computational efficiencies in industry and IT fields using modern technologies from data science. In Fintech, we see that data analytics can effectively predict the stock price, design new financial products, detect fraud transactions, etc. Graduates with training in data analytics are, therefore, of extremely high demand in today's job market.

Since the program not only provides students with hands-on skills but also some practical mathematics background and data analytical tools, we expect that our graduates will be well-equipped to meet their future career challenges and to provide them a better position in any field of data science.