



Bachelor of Arts and Sciences in Social Data Science [BASc(SDS)] A203



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WELCOME!





Programme Overview and Aims



Enquiries Information

Application & Admissions

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Academic Matters

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Programme Pamphlet



**Social
Data Science**

<https://web.edu.hku.hk/programme/bsds>



Why BAsc(SDS)?

- Our rapidly changing society is now driven by **digital data**, and our decision-making is often situated in social contexts and influenced by societal, economic, political and technological factors.
- Social Data Science aims to drive and catalyse new ways of thinking when analysing and applying **data** in the context of the **social sciences**.
- The course takes an **interdisciplinary** approach, integrating information science, computer science, mathematics, statistics, and social sciences to address social issues and societal challenges.



Why BAsc(SDS) so special?

- By bringing together different disciplines from the Faculties of **Education, Science and Social Sciences**, we are positioning the BAsc(SDS) as a senior year entry programme for sub-degree holders.
- Social data science is an area having strong demand in the twenty-first century and it is expected to grow globally and locally across settings.



Demand for graduates in social data science

- Data scientist roles have grown over 650% since 2012, creating 11.5M jobs by 2026, according to the U.S. Bureau of Labor Statistics.
- The demand for data science platform solution and data scientists is expected to grow faster in Asia due to its economic prosperity and advanced technological infrastructure, in particular in dealing with new forms of data with a focus on social, economic, and political aspects.
- Local demand: the importance of data technology, data analytics, and data services as stipulated in the Chief Executive's 2021 Policy Address to develop Hong Kong as an International Innovation and Technology Hub.



Upon graduation of this programme, students will be able to:

- Identify social impact and decision-making process based on the digital data and information
- Demonstrate skills and knowledge in data science and computation through operating with tools and techniques for analysing, visualising, and modelling data
- Synthesise interdisciplinary knowledge and skills in social computation and statistical tools for analysis/analytics to solve real world problems
- Build awareness of social informatics and data science in research and identify controversies and initiatives in the region and the globe
- Apply the design principles and emerging methodologies with information technology from the social informatics perspectives in solving social challenges
- Design basic solutions in addressing social, economic or political inquiries and challenges

Programme features

- **Exchange Programme*** - To foster students' international understanding, the programme encourages them to study overseas in well-established universities through academic exchange.
- **Partnerships with Industry** - Students will apply what they learn in their academic studies in real-life situations by working on social data science related projects through internship experience in a selected organisation.
- **Final Year Project (FYP)** - Students will apply a wide range of research methods and skills in a social data science project to complete a significant piece of work under supervision.

* Overseas trips and exchange opportunities may be affected because of the ongoing COVID-19 pandemic situation



BASc(SDS) senior year programme

There is no Year 1 or Year 2 admission. Successful applicants will be admitted directly to Year 3 of this four-year programme.

	Total
Major in SDS	72
Common Core Courses (in 2 different Areas of Inquiry)	12
English Language Enhancement	6
Free Electives	30
Total	120

72-credit Major in Social Data Science

- Core courses (54 credits)
- Advanced Elective Courses (18 credits; choose 6 credits from each Faculty)



Core Courses (54 credits)

Introductory courses (24 credits)

- Social data science foundations
- Social computing: Methods and applications
- Data structure and algorithm
- Introduction to statistics

Advanced courses (18 credits)

- Data warehousing and data mining
- Application of big data analytics in social sciences / Advanced social data analysis
- Introduction to R/Python programming and elementary data analysis

Capstone courses (12 credits)

- Internship
- Project



Advanced Elective Courses (18 credits)

Students must choose one course from each of the Faculties of Education, Science and Social Sciences

Faculty of Education

- BSIM3017 Database systems (6 credits)
- BSIM3021 Web development, users and management (6 credits)
- BSIM3025 Multimedia and human-computer interaction (6 credits)
- BSIM4011 Project management (6 credits)
- BSIM4020 Information society issues and policy (6 credits)
- BSIM4022 Management information systems (6 credits)
- BSIM4024 Fundamentals of object-oriented programming (6 credits)
- BSIM4027 Selected topics in information management (6 credits)
- MLIM6319 Information behavior (6 credits)
- MLIM7350 Data curation (6 credits)

Faculty of Science

- STAT2605 Demographic and socio-economic statistics (6 credits)
- STAT3612 Statistical machine learning (6 credits)
- STAT3613 Marketing analytics (6 credits)
- STAT3617 Sample survey methods (6 credits)
- STAT3622 Data visualization (6 credits)
- STAT4011 Natural language processing (6 credits)
- STAT4601 Time-series analysis (6 credits)
- STAT4609 Big data analytics (6 credits)



Advanced Elective Courses (18 credits) Con'd

Students must choose one course from each of the Faculties of Education, Science and Social Sciences

Faculty of Social Sciences

- GEOG1020 Modern maps in the age of big data (6 credits)
- GEOG2090 Introduction to geographic information systems (6 credits)
- GEOG2152 Health and medical geography (6 credits)
- GEOG3417 Health, wellbeing, place and GIS (6 credits)
- POLI3039 Public policy analysis (6 credits)
- POLI3080 Global political economy (6 credits)
- POLI3128 The political economy of international development (6 credits)
- POLI3131 In search of good policy: an introduction to policy evaluation (6 credits)
- PSYC2071 Judgements and decision making (6 credits)
- SOCI2080 Media and culture in modern societies (6 credits)
- SOWK2023 Social policy issues in Hong Kong (6 credits)
- SOWK2131 Behavioural economics for social change (6 credits)
- SOWK3091 Mental health sciences and society (6 credits)



Partnerships with Industry

- Many **industry experts** participate in our programme as advisors, co-lecturers, and guest speakers.
- Students will apply what they learn in their academic studies in real-life situations by working on social data science related projects through **internship experience** in a selected organisation.
- The course provides opportunities for the application of social data science **knowledge and techniques** to practical situations, such as marketing, corporate setting, consulting, health care, financial services, and retail and consumer services.



What jobs does this degree feed into?

Potential graduates in this programme will be qualified to work in different fields. Industries with high demand for knowledge and skills of social data science include:

- Innovative and information technologies
- Marketing, financial services and consulting
- Health care, academia and education
- Government, public services and NGOs

