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

Updated in October 2021
WELCOME!
Why Faculty of Education, HKU?

THE World University Rankings by Subject:
• World Number 6 (2022)

QS University Subject Rankings:
• World Number 7 (2021)
# THE World University Rankings by Subject, 2022

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Country/Region</th>
<th>No. of FT Students</th>
<th>No. of students per staff</th>
<th>International Students</th>
<th>Female/Male ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stanford University</td>
<td>United States</td>
<td>16.319</td>
<td>7.3</td>
<td>23%</td>
<td>46 : 54</td>
</tr>
<tr>
<td>2</td>
<td>University of California, Berkeley</td>
<td>United States</td>
<td>40.306</td>
<td>18.9</td>
<td>23%</td>
<td>51 : 49</td>
</tr>
<tr>
<td>3</td>
<td>Harvard University</td>
<td>United States</td>
<td>21.574</td>
<td>9.5</td>
<td>24%</td>
<td>50 : 50</td>
</tr>
<tr>
<td>4</td>
<td>University of Oxford</td>
<td>United Kingdom</td>
<td>20.835</td>
<td>10.7</td>
<td>42%</td>
<td>47 : 53</td>
</tr>
<tr>
<td>5</td>
<td>University of Cambridge</td>
<td>United Kingdom</td>
<td>19.681</td>
<td>11.1</td>
<td>39%</td>
<td>47 : 53</td>
</tr>
<tr>
<td>6</td>
<td>University of Hong Kong</td>
<td>Hong Kong</td>
<td>18.037</td>
<td>18.3</td>
<td>43%</td>
<td>54 : 46</td>
</tr>
<tr>
<td>6</td>
<td>Peking University</td>
<td>China</td>
<td>38.221</td>
<td>11.5</td>
<td>13%</td>
<td>34 : 66</td>
</tr>
<tr>
<td>Rank</td>
<td>University</td>
<td>Overall Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>UCL @London, United Kingdom</td>
<td>95.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Harvard University @Cambridge, United States</td>
<td>90.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>University of Toronto @Toronto, Canada</td>
<td>90.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>University of Oxford @Oxford, United Kingdom</td>
<td>89.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Stanford University @Stanford, United States</td>
<td>89.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>University of Cambridge @Cambridge, United Kingdom</td>
<td>87.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The University of Hong Kong @Hong Kong, Hong Kong SAR</td>
<td>86.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>University of California, Berkeley (UCB) @Berkeley, United States</td>
<td>85.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Bachelor of Arts & Sciences degrees, involving all ten faculties, are aimed at nurturing globally-minded thinkers and leaders able to leverage their interdisciplinary knowledge and skills to address the contemporary and future challenges of our increasingly complex world.
The new Bachelor of Arts & Sciences degrees, involving all ten faculties, are aimed at nurturing globally-minded thinkers and leaders able to leverage their interdisciplinary knowledge and skills to address the contemporary and future challenges of our increasingly complex world.

https://basc.hku.hk/
The BSc(SDS) degree addresses our rapidly changing, data-driven society, where economic, political and technological factors are interconnected.

The programme aims to drive and catalyse new ways of thinking when making sense of data and applying data science in the context of social sciences. It takes an interdisciplinary approach, integrating information science, computer science, mathematics, statistics and social sciences to address social issues and societal challenges.

Social data science is an area of great demand in the twenty-first century and is expected to grow globally and locally across industries, such as information technology, marketing, corporate setting, consulting, health care, financial services, government, NGOs, academia, retail and consumer services, gaming, and education-related organisations.

Faculty of Education
Email: bascsds@hku.hk
Tel: 3917 5413

Programme Website

https://basc.hku.hk/sds/
Programme Overview and Aims

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 \textit{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.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major in SDS</td>
<td>72</td>
</tr>
<tr>
<td>Common Core Courses</td>
<td>12</td>
</tr>
<tr>
<td>(in 2 different Areas of Inquiry)</td>
<td></td>
</tr>
<tr>
<td>English Language Enhancement</td>
<td>6</td>
</tr>
<tr>
<td>Free Electives</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>
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 (6 credits)
- Social computing: methods and applications (6 credits)
- Data structure and algorithm (6 credits)
- Introductory statistics (6 credits)

Advanced courses (30 credits)
- Data warehousing and data mining (6 credits)
- Application of big data analytics in social sciences (6 credits)
- Introduction to R programming and elementary data analysis (6 credits)
- Internship (6 credits)
- Project (6 credits)
Advanced Elective Courses (18 credits)

- Not all courses will necessarily be offered every year
- Complete 3 courses of @ 6 credits - one course from each of the Faculties of Education, Science and Social Sciences

BSIM4020 Information society issues and policy
BSIM4024 Fundamentals of object-oriented programming
GEOG2152 Health and medical geography
GEOG3417 Health, wellbeing, place and GIS
MLIM6319 Information behavior
MLIM7350 Data curation
POLI3128 The political economy of international development
POLI3131 In search of good policy: an introduction to policy evaluation
PSYC2071 Judgements and decision making
SOCI2080 Media and culture in modern societies
SOWK2131 Behavioural economics for social change
STAT2605 Demographic and socio-economic statistics
STAT3612 Statistical machine learning
STAT3613 Marketing analytics
STAT3622 Data visualization
STAT4609 Big data analytics
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
Admissions requirements

• **Local graduates** of recognised full-time Associate Degree (AD) or Higher Diploma (HD) programmes of at least two years in duration from community colleges in Hong Kong in relevant disciplines, such as Data Science and Analytics, Engineering, Computer Science, Information Technology, Statistics, Applied Science, Social Sciences.

• **Final-year local students** studying such programmes may also apply and their applications will be considered subject to their successful completion of the programme by August 2022.

• The intake quota for 2022-23 is **30***

*As the 2022/23 academic year is the beginning of the 2022/23 - 2024/25 triennium for which the allocation of UGC-funded places are still subject to the Government's approval, the number of intake places shown above is indicative only and subject to changes or confirmation.
Admissions requirements (cont.)

• IELTS 7 or equivalent
• HKDSE Mathematics Level 3
• Good GPA
• Leadership and life experience could be considered → 1-2 pages summary preferred
• Prefer applicants placing BASc(SDS) as 1st choice
• Interview for shortlisted applicants → Feb to Mar 2022
Application information

• Apply through Admissions to Senior Year Places (Direct Admissions Scheme)
• Programme code: A203
• Apply by noon, November 17, 2021 (Main round)
• Late application is accepted by noon, August 24, 2022
• Places are being filled all the time, you are advised to apply for admissions as early as possible.
• Admissions details https://admissions.hku.hk/apply/hong-kong-sub-degrees
• Programme website https://web.edu.hku.hk/programme/bsds
Hope to see you soon!