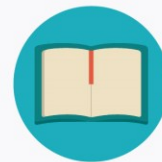
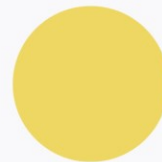


# Bachelor of Arts and Sciences in Social Data Science - BASc(SDS)



# Programme Overview

- Bachelor of Arts and Sciences in Social Data Science (BASc(SDS)) is **hosted by the Faculty of Education** and jointly offered with **Faculties of Science and Social Sciences** at The University of Hong Kong (HKU).
- One of the six Bachelor of Arts & Sciences (BASc) programmes at HKU
  - Applied AI
  - Design+
  - FinTech
  - Global Health and Development
  - Interdisciplinary Studies
  - **Social Data Science**



# Programme Aims

- BASc(SDS) programme takes an **interdisciplinary** approach, integrating information science, computer science, mathematics, statistics, and social sciences, to cultivate students' knowledge and technical skills in addressing social issues and societal challenges.
- BASc(SDS) programme strives to cultivate a community of students from diverse academic backgrounds who possess a keen interest in social data science.
- The programme aims to equip students with data literacy, analytical skills, and interdisciplinary thinking, enabling them to leverage large-scale datasets to derive meaningful insights and make informed decisions in addressing complex social issues.

# Programme Learning Outcomes (PLOs)

PLO	UEA					
	1	2	3	4	5	6
<u>PLO1</u> : Examine decision-making process based on the digital data and information and how the data and information revolution will transform society as a whole			x			
<u>PLO2</u> : Apply the design principles and emerging methodologies with information technology from the social informatics perspectives in addressing social challenges	x	x				
<u>PLO3</u> : Synthesize interdisciplinary knowledge and skills in social computation and statistics for analysis/analytics to solve real world problems	x	x			x	
<u>PLO4</u> : Demonstrate skills and knowledge in data science and social computation through operating with tools and techniques for analysing, visualising, and modelling data	x				x	
<u>PLO5</u> : Evaluate various computational approaches with appropriate criteria for addressing a problem/challenge	x	x				
<u>PLO6</u> : Design basic solutions in addressing social, economic or political inquiries and challenges	x					x
<u>PLO7</u> : Build awareness of social informatics and data science in research and identify controversies and initiatives in the region and the globe			x	x		x

## University's Educational Aims (UEAs)

UEA1: Pursuit of academic/professional excellence, critical intellectual inquiry and life-long learning

UEA2: Tackling novel situations and ill-defined problems

UEA3: Critical self-reflection, greater understanding of others, and upholding personal and professional ethics

UEA4: Intercultural communication, and global citizenship

UEA5: Communication and collaboration

UEA6: Leadership and advocacy for the improvement of the human condition

# Programme Structure

	1 <sup>st</sup> Year (in credits)	2 <sup>nd</sup> Year (in credits)	Total (in credits)
<b>SDS Major Courses</b>	<b>36</b> <i>(includes Internship)</i>	<b>18</b> <i>(includes Final Year Project)</i>	<b>54</b>
<b>SDS Advanced Elective Courses</b>	<i>(Year 3 students can enroll – subject to availability of places)</i>	<b>18</b>	<b>18</b>
<b>English Language Enhancement</b>	<b>6</b>	--	<b>6</b>
<b>Common Core Courses</b>	<b>6</b>	<b>6</b>	<b>12</b> <i>(in different Areas of Inquiry)</i>
<b>Free Electives</b>	<b>12</b>	<b>18</b>	<b>30</b>
<b>Total</b>	<b>60</b>	<b>60</b>	<b>120</b>

# Programme Structure

	Year 3			
	Semester 1		Semester 2	
SDS Major Courses	BSDS3001	BSDS3004	BSDS3002	BSDS3003
			BSIM4018	BSDS3999
Common Core Course	--		1 CCC	
English Language Enhancement	CAES9420		--	
Free Electives	2 Free Electives#			
	30 credits		30 credits	

Students can take not more than 36 credits in one semester.

Students who wish to opt for a minor may be required to take additional study load to fulfil the minor requirement.

# Students may also take Advanced Elective Course(s) in Year 3.

# Core Courses

	SDS Major Courses (9 Courses in total, @ 6 credits)
Year 3	BSDS3001 Social data science foundations
	BSDS3002 Social computing: methods and applications
	BSDS3003 Data processing and visualization
	BSDS3004 Introduction to statistics
	BSDS3999 Internship (Capstone)
	BSIM4018 Data warehousing and data mining
Year 4	BSDS4999 Project (Capstone)
	SOWK3136 Application of big data analytics in social sciences, or SOWK3138 Advanced social data analysis <i>(you will be informed of the course enrollment before course commencement)</i>
	STAT2604 Introduction to R/Python programming and elementary data analysis

## Advanced Elective Courses: 18 credits (6 credits from each discipline)

- Year 3 students can enroll – subject to availability of places
- Not all courses will be offered every year

### Faculty of Education

- BSIM3017 Database systems
- BSIM3021 Web development, users and management
- BSIM3025 Multimedia and human-computer interaction
- BSIM4011 Project management
- BSIM4020 Information society issues and policy
- BSIM4024 Fundamentals of object-oriented programming
- BSIM4027 Selected topics in information management
- BSIM4028 Principles and practice of data visualization
- MLIM6319 Information behavior
- MLIM7350 Data curation

### Faculty of Social Sciences

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

### Faculty of Science

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





# BSDS3999 Internship (Capstone)

## Purpose

- Apply knowledge into practice.
- Students engage in practical experience with social data science related tasks in an organization.

## Internship Coordinator

- Please follow the instruction of the Internship Coordinator regarding the arrangement, otherwise you will not receive any support for arranging the placement.

## Placement

- Placement will normally be arranged through the Internship Coordinator, though students are encouraged to look for their own placement organization.
- Students who are not able to find a placement during the period specified may be required to defer the Internship for one year or to receive a fail grade in the course.

## Supervisors

- Internship Coordinator and Workplace Supervisor

*Dr Dickson Chiu, the Internship Coordinator, will give an Internship Briefing in early September.*

# BSDS4999 Project (Capstone)

- Students are required to complete a project in their final year of study.
- All Year 4 students will have chances to present their Final Year Projects to supervisors, peers and guests from the industry and academia at the **FYP Presentation Day** and Year 3 students are required to participate in the FYP Presentation Day.
- **Ethical approval** must be obtained before data collection for research conducted involving human participants or use of vertebrate animal subjects.
- More details in student handbook or Faculty website:  
<https://web.edu.hku.hk/research/ethics-application>