

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

A. Programme Structure

You are required to complete courses totalling not fewer than 120 credits. As a general guideline, a 6-credit course involves students in about 150 hours of timetabled classes, tutorials, practical sessions, online interaction, reading, practical work, researching and writing assignments.

First Year of the curriculum

- 36 credits in the Major in Social Data Science
- a 6-credit course in the Common Core Curriculum in any Area of Inquiry (Aoi)
- a 6-credit English in the Discipline course
- 12 credits in free elective courses or Advanced Elective Courses

Second Year of the curriculum

- 36 credits in the Major in Social Data Science
- a 6-credit course in the Common Core Curriculum in remaining Areas of Inquiry (Aoi)
- 18 credits in free elective courses

| <u>Semester 1</u> | | <u>Semester 2</u> | | |
|-------------------|---|-------------------|----------------------|-------------------|
| Year 3 | 2 SDS Major Courses | <i>12 credits</i> | 3 SDS Major Courses | <i>18 credits</i> |
| | 1 English in the Discipline Course | <i>6 credits</i> | 1 Common Core Course | <i>6 credits</i> |
| | 2 Free Elective Courses or Advanced Elective Courses | <i>12 credits</i> | Internship | <i>6 credits</i> |
| | Total: 30 credits | | Total: 30 credits | |

| | | |
|-------------------|---|-------------------|
| Year 4 | 5 SDS Major Courses | <i>30 credits</i> |
| | Project (with 12 hours research elements in Semester 1) | <i>6 credits</i> |
| | 1 Common Core Course | <i>6 credits</i> |
| | 3 Free Elective Courses | <i>18 credits</i> |
| | Total: 60 credits | |

Notes:

1. Students shall normally take 60 credits in a year and are required to take not fewer than 24 credits nor more than 30 credits in any one semester unless otherwise permitted or required by the Board of the Faculty.
2. Students may, of their volition, take additional credits not exceeding 6 credits in each semester, and/or further credits during the summer semester, accumulating up to a maximum of 72 credits in one academic year.
3. Students who wish to select a minor are advised to plan ahead as they may be required to take additional study load so as to fulfill the minor requirements.

B. Course list

MAJOR IN SOCIAL DATA SCIENCE (72 credits)

Candidates are required to complete 72 credits in the Major in Social Data Science (including 24 credits of introductory courses; 36 credits of advanced courses; 12 credits of capstone experience) as follows:

Introductory Courses (24 credits)

BSDS3001 Social data science foundations (6 credits)
BSDS3002 Social computing: methods and applications (6 credits)
BSDS3003 Data structure and algorithm (6 credits)
STAT1603 Introductory statistics (6 credits)

Advanced Compulsory Courses (18 credits)

BSIM4018 Data warehousing and data mining (6 credits)
SOWK3136 Application of big data analytics in social sciences (6 credits)
STAT2604 Introduction to R programming and elementary data analysis (6 credits)

Advanced Elective Courses (18 credits)

Candidates are required to complete one course from each of the following three disciplines.

I. Faculty of Education

BSIM4020 Information society issues and policy (6 credits)
BSIM4024 Fundamentals of object-oriented programming (6 credits)
MLIM6319 Information behavior (6 credits)
MLIM7350 Data curation (6 credits)

II. Faculty of Social Sciences

GEOG2152 Health and medical geography (6 credits)
GEOG3417 Health, wellbeing, place and GIS (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)
SOWK2131 Behavioural economics for social change (6 credits)

III. Faculty of Science

STAT2605 Demographic and socio-economic statistics (6 credits)
STAT3612 Statistical machine learning (6 credits)
STAT3613 Marketing analytics (6 credits)
STAT3622 Data visualization (6 credits)
STAT4609 Big data analytics (6 credits)

Capstone Experience (12 credits)

BSDS3999 Internship (6 credits)
BSDS4999 Project (6 credits)

ENGLISH IN THE DISCIPLINE COURSE (6 credits)

CAES9420 Academic English for information management and social data science students

COMMON CORE CURRICULUM (12 credits)

Candidates are required to complete 12 credits of courses in the Common Core Curriculum in different Areas of Inquiry.

ELECTIVE COURSE (30 credits)

Candidates are required to complete 30 credits in elective courses.