

SAMPLE CS-ORIENTED DATA SCIENCE MAJOR PROGRAM PATHWAY

| UNIVERSITY REQUIREMENTS | |
|--------------------------------|-----------|
| Minimum Academic Credit | 15 Units |
| Residency | 8 Units |
| Humanities and Arts | 6/3 Units |
| Interactive Qualifying Project | 3/3 Unit |
| Social Science | 2/3 Unit |
| Physical Education | 1/3 Unit |
| Free Electives | 3/3 Unit |

| MAJOR-SPECIFIC REQUIREMENTS (10 UNITS) | |
|--|------------|
| DS Core Courses* | 3/3 Unit |
| Disciplinary Foundation Courses | 10/3 Units |
| Disciplinary Elective Courses | 11/3 Units |
| DS MQP | 3/3 Unit |
| Data Privacy and Ethics | 1/3 Unit |
| Sciences | 2/3 Unit |

(*) DS core courses include DS 1010, DS 2010, DS 3010.

DISCIPLINARY FOUNDATION COURSES (10/3 UNITS)

| COMPUTER SCIENCE COURSES (3/3 Unit Required) | MATHEMATICS COURSES (5/3 Unit Required) | BUSINESS COURSES (2/3 Unit Required) |
|--|--|--|
| Two of CS 1004, CS 1101, CS 1102, CS 2102, CS 2103, CS 2119, or from CS electives below (**) AND One of CS 2223 | Two of MA 1020, MA 1021, MA 1022, MA 1120, or from MA electives below AND Both MA 2611 and MA 2612 AND One of MA 2071 or MA 2072 | One of BUS 1010, ETR 1100, BUS 3010, ETR 3633 AND One of BUS 2080 or OIE 2081 |

(**) At most 1/3 CS unit at the 1000 level.

DISCIPLINARY ELECTIVE COURSES (11/3 UNITS)

| COMPUTER SCIENCE COURSES | MATHEMATICS COURSES | BUSINESS COURSES |
|--|---------------------|------------------|
| CS 3733 + CS 3431 + CS 4445 + CS 4342 + CS 4433 / DS 4433 + CS 4804 + CS 4432 + CS 4341 | MA 1024 +MA 4635 | +MIS 4084 |

Electives must include at least one course in each of the categories below:

- Databases (CS 3431, CS 4432, MIS 3720, CS 4433/DS 4433)
- Data mining/machine learning (CS 4445, CS 4342/DS 4342)
- Business modeling and prediction (MIS 4084, OIE 4420)

Electives must include at least 4/3 at the 4000 level or above.

Students are encouraged to take electives marked with a "+".

It is a sample program. Students should tailor-make their own programs with their academic advisors.