

(For all students in the Program)

## Undergraduate Minor Program in Big Data Technology

Except for those studying in the Information Technology Minor Program offered by the Department of Computer Science and Engineering, any undergraduate students with an overall CGA of 2.15 or above may enroll in the Big Data Technology Minor Program. The program is designed for students with fundamental knowledge in programming (e.g. COMP 1021/ COMP 1022P/ COMP 1022Q/ ISOM 3230) and in statistics/probability (e.g. ELEC 2600/ IEDA 2510/ ISOM 2500/ LIFS 3150/ MATH 2411/ MATH 2421/ MATH 2431), but also open to other students for enrollment, given that they may be required to take one or two additional courses to acquire relevant foundation. Students must declare their intention to enroll in the Minor Program no earlier than the first regular term of their second year of study but no later than the last day of the add/drop period in the first regular term of their final year of study. Students who wish to withdraw from the Minor Program should apply before the last day of the add/drop period in the first regular term of their final year of study.

### Minor Requirements

To graduate with a minor in Big Data Technology, students must have enrolled in the Minor Program and complete a minimum of 19 credits and all of its requirements, as well as the requirements of the major program of study; and have attained an average grade point of at least 2.15 in courses taken within the minor program.

For credit transfer, students can transfer a maximum total of 6 credits to the Minor Program.

Out of the total credits required by the minor program, at least 9 credits should be single-counted within the minor and are not used to fulfill any other requirements for graduation except the 120-credit degree requirement.

Students may use no more than 6 credits earned from courses offered in pure online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

### Required Course(s)

			Credit(s) attained
COMP		Note: Students are expected to take a 6-week internship (COMP 1991) in the Summer or Winter term. For CSE students who have taken COMP 1991 as major required course, they may seek approval from the Minor Program Coordinator to reuse the course for fulfilling the requirement of this Minor Program.	0
COMP	1991	Industrial Experience	0
COMP		Note: COMP 2011 <u>OR</u> COMP 2012H	4-5
COMP	2011	Programming with C++	4
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5
COMP		Note: COMP 4211 <u>OR</u> COMP 4331	3
COMP	4211	Machine Learning	3
COMP	4331	Data Mining	3
COMP	4651	Cloud Computing and Big Data Systems	3

<b>Elective(s)</b>		<b>Minimum credit(s) required</b>
COMP	Big Data Technology Electives (3 courses from the specified elective list. Students may request to use up to 3 credits of courses listed under <a href="http://www.cse.ust.hk/ug/minor/BDT/">http://www.cse.ust.hk/ug/minor/BDT/</a> to count towards this requirement.)	9
COMP	4221 Introduction to Natural Language Processing	3
COMP	4321 Search Engines for Web and Enterprise Data	3
COMP	4332 Big Data Mining and Management	3
COMP	4421 Image Processing	3
COMP	4462 Data Visualization	3
COMP	4632 Practicing Cybersecurity: Attacks and Counter-measures	3
COMP	4641 Social Information Network Analysis and Engineering	3