PROGRESSIVE DEGREE PROGRAM
COURSE PLAN TEMPLATE

USC SCHOOL	Viterbi School of Engineering
ACADEMIC DEPARTMENT	Computer Science
GRADUATE PROGRAM	Communication Data Science
POSTCODE	1716
TERM EFFECTIVE DATE	Fall 2021

PROGRAM DESCRIPTION
A brief description of the graduate program.

> Students will be experts in the emerging field of data science for communication. Graduates will learn about theories and principles underlying human communication and the ways in which people utilize and engage with communication technologies. They will also understand the technical underpinnings of emerging communication platforms, ranging from social media to enterprise collaboration platforms to virtual and augmented reality. They will have the capability to build these technologies and effectively manage teams that do so. They will also master the theoretical and technical tools to investigate and analyze large volumes of data generated by digital communication platforms using machine learning and artificial intelligence.

COMMON BACHELOR'S DEGREE PROGRAM PATHWAYS
A list of common bachelor's degrees that undergraduate students pursue in advance of pursuing a progressive degree option with this graduate program. Some programs are restricted to specific majors, while others are open to all students.

Computer Science	Data Science
Communication	Business
Various other majors	

PREPARATORY UNDERGRADUATE COURSES
A list of courses at the undergraduate level that prepares students for the graduate program. Required coursework is listed first, followed by recommended courses. If not applicable, this section will be blank.

Dept. Prefix - Course #	Course Title	Required or Recommended	Units
MATH 125	Calculus 1	required	4
	Choose ONE of the Statistics courses below		
BUAD 310	Applied Business Statistics		4
BUAD 312	Statistics and Data Science for Business		4
MATH 407	Probability Theory		4
EE 364	Intro to Probability and Stats for Electrical Engineering + CS		4

UNDERGRADUATE COURSES USED TO REDUCE GRADUATE-LEVEL UNITS

A list of undergraduate-level courses may be used to reduce the number of graduate-level units required for the graduate program. If there are none, that is specified instead.

Dept. Prefix - Course #	Course Title	Units
ITP 115	Programming in Python	2
ITP 116	Python for Programmers	2

CORE GRADUATE PROGRAM REQUIREMENTS (# units required)

A list of all required graduate courses for the graduate program. None of these courses may be used toward satisfying undergraduate degree requirements.

If special exceptions for any of these courses are made by the academic department, the course # is marked with an asterisk (*), and the exception is explained in the "Department Notes" section at the end of this course plan template.

Dept. Prefix - Course #	Course Title	Units
COMM 502	**Theoretical Approaches to Multidisciplinary Design Projects**	**4**
COMM 557	**Data Science for Communication and Social Networks**	**4**
DSCI 549*	**Introduction to Computational Thinking and Data Science**	**4**
DSCI 510*	**Principles of Programming for Data Science**	**4**
DSCI 550*	**Data Science at Scale**	**4**
DSCI Elective		**4**
Annenberg Elective*		**4**
Annenberg Elective*		**4**
	CS majors can waive DSCI 510	
	CS majors may replace DSCI 549 with DSCI 551	
	CS majors may replace DSCI 550 with DSCI 552	

PRE-APPROVED ELECTIVE COURSEWORK

Elective coursework is approved at the discretion of the academic department. Note the following details about the total number and units required for elective coursework.

12	**TOTAL ELECTIVE UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE**
12	**TOTAL ELECTIVE UNITS REQUIRED FOR THE PROGRESSIVE GRADUATE DEGREE**

TOTAL UNIT COUNTS AND REQUIRED GRADUATE UNITS

32	**TOTAL UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE**
4	**TOTAL GRADUATE UNITS THAT MAY BE WAIVED (IF ANY)**
28-32	**MINIMUM NUMBER OF GRADUATE UNITS THAT MUST BE AT THE 500 LEVEL OR ABOVE**

NOTES FROM THE DEPARTMENT

This section highlights any unique considerations, exceptions, or requirements for the graduate program. If a program has specific restrictions (courses, majors, etc.), they are detailed below.

CS/DS Students: Students pursuing an undergrad degree in either Computer Science or Data Science may replace DSCI 549, 510, and 550 with DSCI 551, 552, and DSCI electives. They only need a total of 3 DSCI courses and 28 units to complete the degree.

Non-CS/DS Students: Students may use the eight units of Annenberg graduate electives towards their undergrad degree with approval from their undergraduate advisor. If these do not fit into the undergrad degree, the student will use them for graduate units. Students who have taken ITP 115/116 may replace DSCI 510 with a different DSCI elective.

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| Kelly Goulis | 9/29/2021 |

Authorizing Dean's Name   **Date Approved**

| Senior Associate Dean, Viterbi School of Engineering |

Authorizing Dean's Title