## PROGRESSIVE DEGREE PROGRAM COURSE PLAN TEMPLATE

USC SCHOOL	Viterbi School of Engineering
ACADEMIC DEPARTMENT	Computer Science
GRADUATE PROGRAM	M.S. Cyber Security Engineering
POST CODE	1590
TERM EFFECTIVE DATE	Spring 2021

# PROGRAM DESCRIPTION

A brief description of the graduate program.

The Master of Science in Cyber Security Engineering degree focuses on the fundamentals of developing, engineering, and operating secure information systems. Our curriculum fosters an understanding on how to develop a security policy and how policy drives technology decisions. Students will be well versed in the challenges and problems of secure operating systems, secure applications, secure networking, use of cryptography, and key management. The specialized degree is intended for graduate students who desire to obtain jobs in which computer network operations knowledge and skills are required, or to continue an education path toward a doctorate degree with a focus on information security.

# COMMON BACHELOR 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 certain majors while others are open to all students.

Computer Science and other Engineering Majors	Students in these majors are directly eligible to	
	apply for the CYEN PDP.	
Math, Science, and Computational Majors from	Most students in these majors are directly eligible	
Dornsife are also eligible	to apply for the CYEN PDP.	

### PREPARATORY UNDERGRADUATE COURSES

A list of courses at the undergraduate level that prepare 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
	NONE		

## UNDERGRADUATE COURSES USED TO REDUCE GRADUATE LEVEL UNITS

A list of undergraduate level courses that 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
	None – graduate unit waiver is based on substantial undergraduate	
	background in computer science.	
CSCI 430	Students who have taken CSCI 430 can waive CSCI 530 and replace	4
	it with DSCI 526 OR DSCI 528.	

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# 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
CSCI 530*	Security Systems	4
DSCI 519	Foundations and Policy for Information Security	4
DSCI 523	Computer Systems Assurance	4
DSCI 525	Trusted System Design, Analysis and Development	4
DSCI 529	Security and Privacy in Informatics	4

## 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 of elective coursework.

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

# TOTAL UNIT COUNTS AND REQUIRED GRADUATE UNITS

28	TOTAL UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE
8	TOTAL GRADUATE UNITS THAT MAY BE WAIVED (IF ANY)
20	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.

\*Students who have taken CSCI 430 can waive CSCI 530 and replace it with DSCI 526 OR DSCI 528.

Kelly Goulis

April 7, 2021

Date Approved

Authorizing Dean's Name

Senior Associate Dean, Viterbi School of Engineering

**Authorizing Dean's Title** 

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