

# DUAL MAJOR (CS & CPE)

## COMBINED Computer Science & Computer Engineering Curriculum

Major	Major credits	68	Total credits	134
CS 111x	Intro Programming	3	<b>Math</b>	<b>Credits 18</b>
CS 2110	Software Devlpmnt Meth	3		
CS 2102	Discrete Math	3	APMA 1110	Single Variable Calculus 4
ECE 2630 %	ECE Fundamentals I	4	APMA 2120	Multivariable Calculus 4
ECE 2660 %	ECE Fundamentals II	4	APMA 2130	Ordinary Diff EQ 4
CS 2150	Program/Data Rep	3	APMA 3100	Probability 3
ECE/CS 2330	Digital Logic Design	3	APMA #	Choose 3080 or 3120 3
ECE 3750 %	ECE Fundamentals III	4		
CS 3240	Advanced SW Devlpmnt	3	<b>SEAS requirements &amp; Electives</b>	<b>48</b>
ECE 3430	Intro Embedded Comp Sys	4	STS 1010	Intro Lang, Comm & Tech 3
CS/ECE 4457	Computer Networks	3	STS 2--	STS Elective (2000 or above) 3
CS 4414	Operating Systems	3	STS 4500	STS & Engineering Practice 3
ECE 4435**	Comp Arch and Design	4.5	STS 4600	Engr Ethics & Prof Respnsblty 3
ECE 4440	Embed'd Sys Dsgn (MDE)	4.5	CHEM 1410/11	Intro Chem. Engineers (& Lab) 4
CS Capstone	CS 4980 or CS 4971	3	ENGR 1620/21	Introduction to Engineering 4
CS 3102	Theory of Computation	3	MTH/SCI	Math/Science Elective 3
CS 4102	Algorithms	3	PHYS 1425	Physics I & Lab 4
CS 2190 #	CS Seminar	1	PHYS 2415	Physics II & Lab 4
CS	CS Elective (3000 or above)	3	5 HSS #	Humanities & Social Sci. Elect. 15
CS	CS Elective (3000 or above)	3	1 UE	Unrestricted Elect. (see notes) 2
CS	CS Elective (3000 or above)	3		

\* ECE 4440 counts as 1 CS elective and an exception must be recorded in SIS

\*\* ECE 4435 counts in lieu of CS 3330 (cannot take both) and must be recorded as an exception in SIS

% ECE 2630, 2660 and 3750 count as 12 credits of Unrestricted Electives for CS

# CS 2190 counts as 1 UE credit for CpE

# 2 of the 5 HSS electives required for CS count as Unrestricted electives for CpE

CpE requires 4 CS/ECE electives: 3102, 4102 & CS capstone count as 3 of them

CS requires 5 electives: 4457 and 4440 count as 2 of them

# APMA elective (3080 or 3120) counts as unrestricted elective for CpE

**Students are advised to double check the CS handbook for the specific rules pertaining to electives.**

## Note that double majors do two capstones

JBDugan June 2020

reflects change from science elective to math/science elective in 2nd semester and Chem 1610/11 to 1410/11