Computer Engineering
Computer Engineering Electives
Degree Total: 14-28 credits

GROUP 1 - Choose 4 Courses (minimum of 14 credits)				
Course Number	**Course Title**	**Credits**	**Prerequisites**	**Terms**
CS 356	Systems Security	3	CS214 with a C or higher or CS253 with a C or higher or CS370 with a C or higher	F, S
ECE 450 *and* ECE 451	Digital Systems Design and Digital Systems Design Lab	4	ECE102 with a C or higher; ECE202 with a C or higher; concurrent enrollment in ECE450	F
ECE 452	Computer Organization and Architecture	3	ECE251 with a C or higher	S
ECE 456	Computer Networks	4	CS152 with a C or higher or CS162 with a C or higher or CS163 with a C or higher or CS164 with a C or higher; ECE251 with a C or higher; ECE303 with a C or higher; ECE311 with a C or higher	S
ECE 528/CS 528	Embedded Systems and Machine Learning	4	ECE251 with a C or higher	F

GROUP 2 - Choose 0-11 credits				
Course Number	**Course Title**	**Credits**	**Prerequisites**	**Terms**
DSCI 320	Optimization Methods in Data Science	3	CS163 or CS164 or CS165 or CS220; MATH261; DSCI369 or MATH369	F
ECE 312	Linear System Analysis II	3	ECE311 with a C or higher	S
ECE 331	Electronics Principles I	4	ECE202 with a C or higher; PH142 with a C or higher; MATH340 with a C or higher; ECE311, may be taken concurrently; ECE451, may be taken concurrently or ECE/CS528, may be taken concurrently or CS356, may be taken concurrently	F
ECE 332	Electronics Principles II	4	ECE331 with a C or higher	S

GROUP 3 - Choose 0-3 credits				
Course Number	**Course Title**	**Credits**	**Prerequisites**	**Terms**
ECE 101	Foundations in ECE	1		F, S
ECE 395A[1]	Independent Study	1		F, S, SS
ECE 395B[1]	Independent Study: Open Option	1-3		F, S
ECE 395C[1]	Independent Study: Vertically Integrated Project	1		F, S
IDEA 310L	Design Thinking Toolbox: Creating Things that Think	2	IDEA210, may be registered concurrently	F

[1]A total of 6 credits of Independent Study may apply towards degree requirements. This includes credits awarded for ECE395 and ECE495 combined.