Undergraduate Curriculum Comparison

General Education	Computer Science	Software Engineering	Computer Engineering	Electrical Engineering
English Composition	6 hours	6 hours	6 hours	6 hours
Humanities	6 hours	6 hours	6 hours	6 hours
Fine Arts	3 hours	3 hours	3 hours	3 hours
Social/Behavioral Sciences	6 hours	6 hours	6 hours	6 hours

Major Core		Computer Science	Software Engineering	Computer Engineering	Electrical Engineering
Communication	Public Speaking or Intro to Comm	CO 1003 or CO 1013	CO 1003 or CO 1013		
Writing	Technical Writing	GE 3513	GE 3513	GE 3513	GE 3513
Mathematics and Statistics	Calculus I	MA 1713	MA 1713	MA 1713	MA 1713
	Calculus II	MA 1723	MA 1723	MA 1723	MA 1723
	Calculus III			MA 2733	MA 2733
	Calculus IV			MA 2743	MA 2743
	Linear Algebra	MA 3113	MA 3113	MA 3113	MA 3113
	Differential Equations			MA 3253	MA 3253
	Math Elective	MA 2733, MA 3053, MA 4143, or MA 4173	MA 2733, MA 3053, MA 4143, or MA 4173		
	Eng Stats I	IE 4613	IE 4613	IE 4613	IE 4613
Natural Sciences	Biology I	BIO 1134	BIO 1134		
	Chemistry I / Lab	CH 1213/1211	CH 1213/1211	CH 1213/1211	CH 1213/1211
	Physics I	PH 2213	PH 2213	PH 2213	PH 2213
	Physics II			PH 2223	PH 2223
	Science Elective	PH 2223, BIO 1144, CH 1223/1221	PH 2223, BIO 1144, CH 1223/1221		

Computer Science and Engineering	Computer Science	Software Engineering	Computer Engineering	Electrical Engineering
Introduction to CSE	CSE 1002	CSE 1002		
Introduction to Programming	CSE 1284	CSE 1284	CSE 1284	CSE 1284
Intermediate Programming	CSE 1384	CSE 1384	CSE 1384	CSE 1384
Data Structures	CSE 2383	CSE 2383	CSE 2383	CSE 2383
Discrete Structures	CSE 2813	CSE 2813	CSE 2813	
SE Senior Project I		CSE 3213		
SE Senior Project II		CSE 3223		
Distributed Client/Server Prog	CSE 3324	CSE 3324	CSE 3324	
Formal Languages	CSE 3813			
Computer Ethics	CSE 3981	CSE 3981		
Data Communications		CSE 4153	ECE 4833	
Intro to Software Engineering		CSE 4214		
Mgmt of Software Projects		CSE 4233		
Software Testing and QA		CSE 4283		
Database Management Systems	CSE 4503	CSE 4503		
Programming Languages	CSE 4713			
Operating Systems	CSE 4733	CSE 4733	CSE 4733	
Algorithms	CSE 4833	CSE 4833	CSE 4833	
CSE Electives	12-13 hours	Security (3 hours)		
CSE Tech Electives	6 hours	6 hours		

Electrical and Computer Engineering	Computer Science	Software Engineering	Computer Engineering	Electrical Engineering
Introduction to ECE Design I			ECE 1013	ECE 1013
Introduction to ECE Design II			ECE 1022	ECE 1022
Intro to Solid State Electronics				ECE 3213
Electromagnetics I				ECE 3313
Electromagnetics II				ECE 3323
Intro to Electronic Circuits			ECE 3413	ECE 3413
Intermediate Electronic Circuits			ECE 3424	ECE 3424
Advanced Electronic Circuits			ECE 3434	ECE 3434
Signals and Systems			ECE 3443	ECE 3443
Fundamentals of Energy Systems				ECE 3614
Digital Devices	ECE 3714	ECE 3714	ECE 3714	ECE 3714
Microprocessors	ECE 3724	ECE 3724	ECE 3724	ECE 3724
ECE Design I			ECE 4532	ECE 4512
ECE Design II			ECE 4542	ECE 4522
Computer Architecture	ECE 4713		ECE 4713	
Embedded Systems or VLSI Design			ECE 4723 or ECE 4263	
Digital System Design			ECE 4743	
Data Communications		CSE 4153	ECE 4833	
Eng Mechanics I / Thermodynamics I				EM 2413 or ME 3513
CPE/EE Tech Electives			6 hours	9 hours
Engineering Science				3 hours
Professional Elective				3 hours

Free Elective	Computer Science	Software Engineering	Computer Engineering	Electrical Engineering
Any course	7 hours	3 hours		

Legend:		ABC 1234	ABC 1234	ABC 1234
	Course not required	Course is required	Course is required by >1 major	Course is required by all 4 majors