

To Receive a BS Degree in Both Computer Engineering and Computer Science

A dual degree in Computer Engineering and Computer Science can be received by taking 20-22 credit-hours of additional coursework, provided one carefully plans their course schedule. While the plan will vary for each student, one possibility is given. In any case, students should discuss their plans with their advisor and carefully monitor their CAPS reports to ensure they are consistently meeting the requirements of both programs.

Example course-plan for a dual degree in CpE and Cmp Sc:

Semester	Courses to be taken	Credits	Requirement(s) satisfied in Cmp Sc	Requirement(s) satisfied in Cp Eng
1	<u>Either</u> Fr Eng 1100 – Study and Careers in Engineering – or Cmp Sc 1010-Freshman Seminar	1	Cmp Sc 1010 (Note: waiver may be required)	Fr Eng 1100 (Note: waiver may be required)
	Cmp Sc 1570-Intro to Programming	3	Cmp Sc 1570	Cmp Sc 1570
	Cmp Sc 1580-Intro to Prog Lab	1	Cmp Sc 1580	Cmp Sc 1580
	<u>Either</u> Math 1208-Calculus with Analytic Geometry I – or Math 1214 – Calculus I for Engineers	4 or 5	Math 1208 (Note: waiver may be required)	Math 1214 (Note: waiver may be required)
	Humanities elective	3	Humanities elective	Humanities or Soc. Sci. elective
	Mc Eng 1720 – Eng. Design with Comp. Appl.	3	Free elective or Sci/Eng elective	Mc Eng 1720

15-16

2	Cmp Sc 1510-Data Structures	3	Cmp Sc 1510	Cmp Sc 1510
	<u>Either</u> Math 1221-Calculus with Analytic Geometry II – or Math 1215 – Calculus II for Engineers	4 or 5	Math 1221 (Note: waiver may be required)	Math 1215 (Note: waiver may be required)
	Chem 1310 – General Chemistry	4	Laboratory science course	Chem 1310
	Chem 1319 – General Chemistry Laboratory	1	Laboratory science course	Chem 1319
	Chem 1100 – Introduction to Lab Safety	1	Laboratory science course	<none>
	Cmp Sc 1200-Discrete Math for Cmp Sc	3	Cmp Sc 1200	Cmp Sc 1200

16-17

3	Econ 1100 or 1200	3	Social science elective	Econ 1100 or 1200
	Math 2222-Calculus with Analytic Geometry III	4	<none>	Math 2222
	Physics 1135 – Engineering Physics I	4	Physics elective	Physics 1135
	English 1120-Exposition & Argumentation	3	English 1120	English 1120
	Cp Eng 2210-Intro to Cp Eng	3	Cp Eng 2210	Cp Eng 2210
	Cp Eng 2211 – Computer Engineering Lab I	1	Sci/Eng elective or Free elective	Cp Eng 2211

18

4	Cmp Sc 2500-Algorithms	3	Cmp Sc 2500	Free elective
	Literature elective	3	Literature elective	
	El Eng 2100-Circuits I	3	Free elective	El Eng 2100
	El Eng 2101-Circuit Analysis Lab	1		El Eng 2101
	Physics 2135 – Engineering Physics II	4	Physics elective	Physics 2135
	Cp Eng 3150-Digital Systems Design	3	Cp Eng 3150	Cp Eng 3150
	Cp Eng 3151 – Computer Engineering Lab II	1		Cp Eng 3151
		<hr/> 18		

5	Math 3304-Elementary Differential Equations	3	Free elective	Math 3304
	El Eng 2200-Introduction to Electronic Devices	3		El Eng 2200
	El Eng 2201-Electronic Devices Lab	1		El Eng 2201
	El Eng 2120-Circuits II	3		El Eng 2120
	Cmp Sc 2200 – Theory of Computer Science	3	Cmp Sc 2200	
	Cmp Sc 2300-File Struct & Intro Database Sys	3	Cmp Sc 2300	
		<hr/> 16		

6	Math 3108-Linear Algebra I	3	Math 3108	Math elective
	Cmp Sc 3800-Intro Operating Systems	3	Cmp Sc 3800	Cmp Sc 3800
	Cp Eng 3110 – Computer Architecture	3	Eng/Science Electives	Cp Eng 3110
	Sp&MS 1185-Principles of Speech	3	Sp&MS 1185	Sp&MS 1185
	El Eng 3410-Digital Signal Processing	3	Eng/Science Electives	El Eng 3410

15

7	Cmp Sc 3500-Prog Languages & Translators	3	Cmp Sc 3500	
	Take either Cp Eng 5410 – Digital Network Design <u>or</u> Cmp Sc 5600 – Computer Networks	3	Cmp Sc Electives (Cp Eng 5410 may require a substitution form)	Cp Eng 5410 or Cmp Sc 5600
	Cmp Sc 3200-Intro to Numerical Methods	3	Cmp Sc 3200	Cp Eng Senior Elective E
	English 1160-Writing and Research or English 3560 – Technical Writing	3	English 1160	English 3560
	3 hours selected from IDE Mc Eng 2340, Mc Eng 2519, Mc Eng 2527, Physics 2311, Physics 2401, Chem 2210, Biology 2213, or Biology 2223	3	Eng/Science Electives	Cp Eng Science Elective
	Hist 1200, 1300, 1310, or Pol Sc 1200	3	History/political science/constitution requirement	Hist 1200, 1300, 1310, or Pol Sc 1200

18

8	Social Science Elective	3	Social Science Elective	Elective-Hum or Soc Sc (any level)
	Cmp Sc Electives (15 total hours-at least 9 hours at 5xxx level or higher)	3	Cmp Sc Electives	Cp Eng Senior Elective A (4xxx or 5xxx level)
	Upper level Hum or Soc Sci course	3	Humanities/Social Science Elective	Elective-Hum or Soc Sc (upper level)
	Stat 3115-Engineering Statistics	3	Stat 3115	Stat 3117
	Cp Eng 4096-Senior Project I	1	Sci/Eng elective or Free elective	Cp Eng 4096
	Cmp Sc 3100 – Software Engineering I	3	Cmp Sc 3100	

16

9	Cp Eng Senior Elective B (4xxx or 5xxx level course, excludes 4096, 4097, 5410)	3	Free Elective	Cp Eng Senior Elective B
	Cmp Sc Electives (15 total hours-at least 9 hours at 5xxx level or higher)	3	Cmp Sc Electives	Cp Eng Senior Elective C
	Cmp Sc Electives (15 total hours-at least 9 hours at 5xxx level or higher)	3	Cmp Sc Electives	Cp Eng Senior Elective D
	Cmp Sc Electives (15 total hours-at least 9 hours at 5xxx level or higher)	3	Cmp Sc Electives	
	Cmp Sc 4096-Software Systems Development I	3	Cmp Sc 4096	
	Cp Eng 4097-Senior Project II	3	Sci/Eng elective or Free elective	Cp Eng 4097

15

