

COMPUTER ENGINEERING

Academic Year 2019 - 2020

FALL

Course number	Course Title	USP	Credits	Min Grade	Grade Earned
Freshman year					
_____ 1101	First Year Seminar	FYS	3	C	
CHEM 1020	General Chemistry I	PN	4		
	ACT 23 or concurrent enrollment MATH 1400 or 1405 or 1450				
COSC 1010	Intro. to Computer Science I		4	C	
ENGL 1010	College Comp & Rhetoric	COM1	3	C	
MATH 2200	Calculus I	Q	4	C	
	MATH 1405 or MATH 1450, or MPE 5, or ACT 27/SAT of 600				
Total			18		

SPRING

Course Number	Course Title	USP	Credits	Min Grade	Grade Earned
Freshman year					
COSC 1030	Computer Science I		4	C	
ES 2110	Statics (1)		3	*	
	MATH 2205 or concurrent enrollment				
MATH 2205	Calculus II		4	C	
	MATH 2200 or AP credit in MATH 2200				
PHYS 1210	Engineering Physics I (2)	PN	4	C	
	Math 2200 or AP credit in MATH 2200				
Total			15		

Sophomore year

COSC 2030	Computer Science II		4	*	
	COSC 1030				
ES 2120	Dynamics (1)		3	*	
	ES 2110 and MATH 2205; PHYS 1210 or concurrent enrollment.				
ES 2210	Electric Circuit Analysis		3	C	
	MATH 2205 or concurrent enrollment				
MATH 2210	Calculus III		4	C	
	MATH 2205 or AP credit in MATH 2205				
PHYS 1220	Engineering Physics II (2)		4	*	
	MATH 2200 and 2205, and concurrent enrollment in MATH 2210.				
Total			18		

COSC 2150	Computer Organization		3	*	
	EE 2210				
EE 2220	Circuits and Signals		4	C	
	EE 2210				
EE 2390	Digital Systems Design		4	C	
	COSC 1010 or COSC1030 or ES 1060, and MATH 2205.				
MATH 2300	Discrete Structures		3		
	COSC 1030, MATH 2200 or 2350.				
MATH 2310	Applied Differential Equations I		3	C	
	MATH 2205				
Total			17		

Junior year

EE 3220	Signals And Systems		3	*	
	EE 2220.				
EE 3310	Electronics I		4	*	
	PHYS 1220 or PHYS 1320 or EE 3150, and EE 2220 or concurrent enrollment.				
EE 4490	HDL Digital Design		3	*	
	EE 2390				
	Human Culture Course	H1	3		
	Communication Course	COM2	3	C	
	COM1				
Total			16		

EE 3330	Electronics II		4	*	
	EE 2220 and EE 3310				
EE 4220	Probabilistic Signals & Systems		3	C	
	EE 3220 and MATH 2210				
EE 4390	Microprocessors		3	*	
	EE 2390.				
	Human Culture Course	H2	3		
	Math/Science Elective (3)		3	*	
Total			16		

Senior year

COSC 4760	Computer Networks OR		3	*	
	COSC 2030				
EE 4870	Network Hardware			*	
	(4 credit hours) EE 2390				
EE 3150	Electromagnetics		3	C	
	ES2210, MATH 2210, and PHYS 1220 or concurrent enrollment				
EE 4820	Senior Design I		2	C	
	see note below				
	BE or EE Elective (5)		3	*	
	US & Wyo Constitution Course	V	3		
Total			14		

EE 4830	Senior Design I (6)	COM3	2	C	
	EE 4820				
	CPEN Elective (7)		3	*	
	CPEN Elective (7)		3	*	
	CPEN Elective (7)		3	*	
	CPEN Elective (7)		3	*	
Total			14		

KEY

Fall only	Prerequisite(s)
Spring only	

*Students must have a minimum cumulative GPA of 2.0 in all Engineering courses and overall GPA of 2.0 for graduation. Grade of C (2.0) or higher is required for all prerequisite courses. Note: a minimum of 42 hours of upper division coursework, 30 hours of which must be from the University of Wyoming.

- (1) or any ES, EE, BE course (≥2000 level), or COSC 3011 or COSC 3750
- (2) PHYS 1210: no credit can be earned in PHYS 1210 if taken after ES 2120. PHYS 1220 should be taken before or concurrently with ES 2210.
- (3) Math/Science Electives: One course from the ECE Math/Science Elective List. ABET requires a minimum of 30 hours of a combination of college level mathematics and basic sciences (some with experimental experience)
- (4) Prerequisite: EE 2220, EE 2390, & EE 3310 or concurrent enrollment, plus 6 hours of 4000 level EE/BE courses or concurrent enrollment. COM2 grade C or better.
- (5) EE Electives: A minimum of 19 hours of EE and technical electives is required. A minimum of 15 credit hours of non-required EE courses offered by the ECE Department. Suggestions are as follows:
- Electronics: EE 4250, 4300, 4330, 4340, 4360, 4560, BE 4810, BE 4820
 - Comm/Signal Processing: EE 4245, 4300, 4345, 4870
 - Systems & Controls: EE 5210, 5400
 - Power Engineering: EE 4510, 4540, 4550, 4560
 - Digital/Computer: EE 4360, 4490, 4590, 4870, 4970, 4990
- (6)COM3 to satisfy this requirement with EE 4820/4830 the COM2 course must be taken before EE 4820. Also EE 4820 and EE 4830 must be taken in sequence. EE 4830 is ideally taken in the final semester.
- (7)CPEN Elective Courses (Choose four classes from this list, at most two of which can be from the Computer Science department):
- EE 4245, 4340, 4345, 4360, 4440, 4590, 4870, 4990, 5390, 5410, 5430, 5620, 5630, 5650
 - COSC 3020, 4450, 4550, 4555, 4560, 4730, 4740, 4760

Total Program Credits: **128**