

Computer Engineering, BS (2014-2015)



University of Wyoming

Freshman Fall Semester

	Hrs	Min Grade	Notes
CHEM 1020 General Chemistry I	4	D	Prerequisite-ACT Math score of 23 or above, or concurrent enrollment in Math 1400, or 1405 or 1450.
COSC 1010 Introduction to Computer Science I	4	C	Prerequisite: grade of C or better in MATH 1400 or Level 4 or higher on the MPE within one year prior to the start of the course.
ENGL 1010 College Composition & Rhetoric	3	C	
ES 1000 Orientation to Engineering	1	C	
MATH 2200 Calculus I	4	C	Prerequisite: C or better in MATH 1405 or 1450 or Level 5 on the MPE or Math ACT of 27 or Math SAT of 600.
PEAC 1001 PE Activity & Health	1		
Credit hours subtotal:			17

Freshman Spring Semester

	Hrs	Min Grade	Notes
COSC 1030 Computer Science I	4	C	Prerequisite: COSC 1010 or equivalent experience and concurrent registration in MATH 1405 or MATH 1450.
EE 1010 Intro. to Electrical and Computer Engineering	1	C	
ES 2110 Statics	3	C	Prerequisites: MATH 2205 or concurrent enrollment.
MATH 2205 Calculus II	4	C	Prerequisite: grade of C or better in MATH 2200 or AP credit in MATH 2200.
PHYS 1210 Engineering Physics I	4	C	Prerequisite: grade of C or better in MATH 2200 or AP credit in MATH 2200.
Credit hours subtotal:			16

Sophomore Fall Semester

	Hrs	Min Grade	Notes
COSC 2030 Computer Science II	4	C	Prerequisite: COSC 1030
ES 2120 Dynamics	3	C	Prerequisites: ES 2110 and MATH 2205; PHYS 1210 or concurrent enrollment.
ES 2210 Electric Circuit Analysis	3	C	Prerequisite: MATH 2205 or concurrent enrollment.
MATH 2210 Calculus III	4	C	Prerequisite: grade of C or better in MATH 2205 or Advanced Placement credit in MATH 2205.
PHYS 1220 Engineering Physics II	4	C	Prerequisites: grades of C or higher in MATH 2200, 2205 and concurrent enrollment in MATH 2210.
Credit hours subtotal:			18

Sophomore Spring Semester

	Hrs	Min Grade	Notes
COSC 2150 Computer Organization	3	C	Prerequisite: COSC 1030
EE 2220 Circuits and Signals	4	C	(S.O.); Prerequisite: ES 2210
EE 2390 Digital Systems Design	4	C	Prerequisites: COSC 1010 or COSC1030 or ES 1060, and MATH 2205.
MATH 2300 Discrete Structures	3	D	Prerequisite: grade of C or better in COSC 1030, MATH 2200 or 2350.
MATH 2310 Applied Differential Equations I	3	C	Prerequisite: grade of C or better in MATH 2205.
Credit hours subtotal:			17

Notes: (S.O.) offered Spring semester ONLY (F.O.) offered Fall semester ONLY

*Students must have a minimum cumulative GPA of 2.0 in all Engineering course for graduation.

Grade of C (2.0) or higher is required for all prerequisite courses.

Students must complete a minimum of 42 hours of upper division coursework, 30 of which must from the University of Wyoming

EE 1010 may be replaced with technical elective if transfer credits > 30 hrs

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.

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Junior Fall Semester			Hrs	Min Grade	Notes
EE	3220	Signal and Systems	3	C	Prerequisite: EE 2220.
EE	3310	Electronics I	4	C	Prerequisites: PHYS 1220 or PHYS 1320 or EE 3150, and EE 2220 or concurrent enrollment.
EE	4490	HDL Digital Design	3	*	
		USP/Technical Elective	3		
		Cultural Context	3	C	
Credit hours subtotal:			16		

Junior Spring Semester			Hrs	Min Grade	Notes
EE	3330	Electronics II	4	C	Prerequisite: EE 3310.
EE	3150	Electromagnetics	3	C	
EE	4390	Microprocessors	3	*	Prerequisite: EE 2390.
		Cultural Context	3	*	
		Math/Science Elective	3	C	One course from the ECE Math/Science Elective List
Credit hours subtotal:			16		

Senior Fall Semester			Hrs	Min Grade	Notes
EE	4220	Probabilistic Signals and Systems	3	C	Prerequisite: EE 3220 and MATH 2210.
EE	4820	Senior Design I	2	C	Prerequisites: EE 2390 and corequisite course in area of the design project.
EE	4870	Network Hardware	4	*	Prerequisites: EE 2390.
		or COSC 4760 Computer Networks	3	C	Prerequisite: COSC 2030.
ENGL	4010	Science & Technical Writing	3		
		EE/COSC Elective	3		
		US/Wyoming Constitution Course	3	*	
Credit hours subtotal:			17 or 18		

Senior Spring Semester			Hrs	Min Grade	Notes
EE	4830	Senior Design II	2	*	Prerequisites: EE 4820 and selected courses in the area of the design project.
		CPEN Option Course #1	3	*	
		CPEN Option Course #2	3	*	
		EE/COSC Elective	3	*	
		Cultural Context	3	*	
Credit hours subtotal:			14		

TOTAL CREDIT HOURS: 132

Notes: (S.O.) offered Spring semester ONLY (F.O.) offered Fall semester ONLY

Math/Science Elective: One course from the ECE Math/Science Elective List. ABET requires a minimum of 32 hours of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline. Basic sciences are defined as biological, chemical, and physical sciences.

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, 4530, 4590, 4870, 4990, 5390, 5430, 5630, 5650 COSC 3020, 4450, 4550, 4555, 4560, 4730, 4740, 4760.

Prerequisites for Upper Division electives vary. EE 4075 is not allowed. Other EE or COSC graduate level classes may be considered upon petition.

EE 4830 is normally taken in the final semester.