

Electrical Engineering, BS (2016-2017)



University of Wyoming

Freshman Fall Semester

	Hrs	Min	Grade	Notes
CHEM 1020 General Chemistry I	4		D	PN#1; Prerequisite-ACT Math score of 23 or above, or concurrent enrollment in Math 1400, 1405 or 1450.
EE 1101 Bits & Bytes A Taste of Electronics	3		C	FYS
ENGL 1010 College Composition & Rhetoric	3		C	COM1
ES 1060 Introduction to Engineering Problem Solving	3		C	Prerequisite: MATH 2200 or concurrent enrollment
MATH 2200 Calculus I	4		C	Q; Prerequisite: grade of C or better in MATH 1405 or 1450 or Level 5 on the MPE or Math ACT of 27 or Math SAT of 600.
Credit hours subtotal:				17

Freshman Spring Semester

	Hrs	Min	Grade	Notes
ES 2110 Statics	3		*	Prerequisites: MATH 2205 or concurrent enrollment.
				or any ES, EE, BE course (>2000 level), or COSC 3011 or COSC 3750
MATH 2205 Calculus II	4		C	Prerequisite: grade of C or better in MATH 2200 or Advanced Placement credit in MATH 2200.
MATH 2250 Elementary Linear Algebra	3		C	Grade of C or better in MATH 2200 or 2350.
PHYS 1210 Engineering Physics I	4		C	PN#2; Prerequisite: grade of C or better in MATH 2200 or AP credit in MATH 2200.
Credit hours subtotal:				14

Sophomore Fall Semester

	Hrs	Min	Grade	Notes
ES 2120 Dynamics	3		*	Prerequisites: ES 2110 and MATH 2205; PHYS 1210 or concurrent enrollment.
				or any ES, EE, BE course (>2000 level), or COSC 3011 or COSC 3750
ES 2210 Electric Circuit Analysis	3		C	Prerequisite: MATH 2205.
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 and 2205, and concurrent enrollment in MATH 2210.
				Human Culture course
Credit hours subtotal:				17

Sophomore Spring Semester

	Hrs	Min	Grade	Notes
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 corequisite MATH 2210.
MATH 2310 Applied Differential Equations I	3		C	Prerequisite: grade of C or better in MATH 2205.
				US/Wyoming Constitution Course
				Math/Science Elective
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.

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.

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.

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Junior Fall Semester

	Hrs	Min	Grade	Notes
EE 3150 Electromagnetics	3		*	(F.O.) Prerequisites: ES2210 or PHYS 1220 and MATH 2210.
EE 3220 Signals And Systems	3		C	(F.O.) Prerequisite: EE 2220.
EE 3310 Electronics I	4		C	(F.O.) Prerequisites: PHYS 1220 or PHYS 1320 and corequisite: EE 2220.
EE 3510 Electromechanics	4		C	(F.O.) Prerequisite: ES 2210 and corequisite EE 2220.
Communication 2 course	3		C	COM 2
Credit hours subtotal:				17

Junior Spring Semester

	Hrs	Min	Grade	Notes
EE 3330 Electronics II	4		*	(S.O.) Prerequisite: EE 2220 and EE 3310
EE 4075 C++ with Numerical Methods for Engineers	4		*	(S.O.) Prerequisites: MATH 2205 and (COSC 1010 or ES 1060) and (MATH 2250 or 2310) or consent of instructor.
EE 4220 Probabilistic Signals and Systems	3		C	(S.O.) Prerequisite: EE 3220 and MATH 2210
EE 4390 Microprocessors	3		*	(S.O.) Prerequisite: EE 2390.
EE 4620 Automatic Control Systems	3		*	(S.O.) Prerequisite: EE 2220.
Credit hours subtotal:				17

Senior Fall Semester

	Hrs	Min	Grade	Notes
EE 4440 Communication Theory	3		*	(F.O.) Prerequisite: EE 3220 and EE 4220.
EE 4820 Senior Design I	2		C	(F.O.) Prerequisites: COM2; EE 2390 and corequisite EE 3330
EE Elective	4		*	
EE Elective	3		*	
Human Culture course	3		D	H#2
Credit hours subtotal:				15

Senior Spring Semester

	Hrs	Min	Grade	Notes
EE 4830 Senior Design II	2		C	COM3; (S.O.) Prerequisites: COM2; EE 4820 and EE 3330.
EE Elective	3		*	
EE Elective	3		*	
EE Elective	3		*	
Technical Elective	3		*	
Credit hours subtotal:				14

TOTAL CREDIT HOURS: 128

Students must complete a minimum of 48 hours of upper division coursework, 30 of which must from the University of Wyoming
 EE Electives: A minimum of 19 hours of EE electives is required. A minimum of 16 credit hours of non-required EE courses offered by the ECE

Department. Suggestions are as follows:

Electronics: EE 4250, 4300, 4330, 4340, 4360, 4380, 4560, BE 4810, BE 4820

Comm/Signal Processing: EE 4245, 4300, 4345, 4530, 4870

Systems & Controls: EE 5210, 5400

Power Engineering: EE 4510, 4540, 4550, 4560

Digital/Computer: EE 4070, 4360, 4490, 4590, 4870, 4970, 4990

Technical Elective: Any course marked as technical electives in the ECE Math/Science Elective List.

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.