

Computer Engineering, BS – International Option



University of Wyoming, 2015-16

Freshman Fall Semester			Hrs	Min	Grade	Notes
USP First-Year Seminar			3		C	FY
USP Human Culture (Language *)			4			H
COSC	1010	Introduction to Computer Science I **	4		C	
ENGL	1010	College Composition and Rhetoric	3		C	C1
MATH	2200	Calculus I ***	4		C	Q
Credit hours subtotal:			18			

Freshman Spring Semester			Hrs	Min	Grade	Notes
USP Human Culture (Language *)			4			H
COSC	1030	Computer Science I	4		C	
EE	1010	Intro/Electrical & Computer Engineering ****	1		C	Offered spring only.
MATH	2205	Calculus II	4		C	
PHYS	1210	Engineering Physics I	4		C	PN; no credit can be earned in PHYS 1210 if taken after ES 2120.
Credit hours subtotal:			17			

Freshman Summer Session			Hrs	Min	Grade	Notes
CHEM	1020	General Chemistry I	4			PN
MATH	2210	Calculus III	4		C	
Credit hours subtotal:			8			

Sophomore Fall Semester			Hrs	Min	Grade	Notes
COSC	2030	Computer Science II	4		C	
ES	2120	Dynamics	3		^	
ES	2210	Electric Circuit Analysis	3		C	
PHYS	1220	Engineering Physics II	4		C	Should be taken before or concurrently with ES 2210.
Language *			4			
Credit hours subtotal:			18			

Sophomore Spring Semester			Hrs	Min	Grade	Notes
EE	2220	Circuits and Signals	4		C	
EE	2390	Digital Systems Design	4		C	
ES	2110	Statics	3		C	
MATH	2300	Discrete Structures	3			
Language *			3			
Credit hours subtotal:			17			

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross-listed with the major.

College of Engineering and Applied Science requirements:

Students must have a minimum cumulative GPA of 2.0 in all Engineering courses for graduation. • A grade of C or higher is required for all prerequisite courses. Students must also achieve a grade of C or better in all required mathematics courses.

Computer Engineering - International Option Program Notes:

This option includes at least one semester of study abroad. In addition, students may participate in a four-to-five month international internship. Coursework taken during the study abroad semester(s) will be determined with the student's advisor on an individual basis based on availability, time, and remaining course load.

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Junior Fall Semester				Hrs	Min Grade	Notes
		USP US & Wyoming Constitutions		3		V
EE	3220	Signal and Systems		3	C	Offered fall only.
EE	3310	Electronics I		4	C	Offered fall only.
EE	4490	HDL Digital Design		3	^	Offered fall only.
MATH	2310	Applied Differential Equations I		3	C	
Credit hours subtotal:				16		

Junior Spring Semester				Hrs	Min Grade	Notes
		USP Communication 2		3	C	C2
EE	3330	Electronics II		4	C	Offered spring only.
EE	4220	Probabilistic Signals and Systems		3	^	Offered spring only.
EE	4390	Microprocessors		3	^	Offered spring only.
		Math/Science Elective *****		3	C	
Credit hours subtotal:				16		

Senior Fall Semester				Hrs	Min Grade	Notes
COSC	2150	Computer Organization		3	C	Offered fall only.
EE	3150	Electromagnetics		3	C	Offered fall only.
EE	4820	Senior Design I		2	C	Offered fall only.
EE	4870	Computer Network Hardware		3	^	Offered fall only; can substitute an EE/COSC elective (any EE or COSC course at the 4000- or 5000-level).
ENGL	4010	Technical Writing in the Professions		3	C	C3
		EE/COSC Elective		3	^	Any EE or COSC course at the 4000- or 5000-level.
Credit hours subtotal:				17		

Senior Spring Semester				Hrs	Min Grade	Notes
EE	4830	Senior Design II		2	^	Offered spring only.
		CPEN Option Course #1 *****		3	^	
		CPEN Option Course #2 *****		3	^	
		EE/COSC Electives		6	^	Any EE or COSC course/s at the 4000- or 5000-level.
Credit hours subtotal:				14		

TOTAL CREDIT HOURS: 141

Computer Engineering - International Option Program Notes con't:

^ Students must have a minimum cumulative GPA of 2.0 in all Engineering courses for graduation.

* A **single language** must be taken for four (4) semesters to fulfill the 15 hour foreign language requirement for the program. • Students taking American Sign Language to fulfill the language requirement of the major will have to take other courses to fulfill the USP H requirements.

** Requires MATH ACT ≥ 25 , MATH SAT ≥ 600 , Math Placement Exam ≥ 4 , or $\geq C$ in MATH 1400 within one year prior to the start of the course. (University standard)

*** Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , Math Placement Exam ≥ 5 , or $\geq C$ in MATH 1405 or 1450. (University standard)

**** EE 1010 may be replaced with technical elective if transfer credits > 30 hrs. A technical elective is any course in Engineering, Computer Science, or those marked as technical electives in the ECE Math/Science Elective List (found at www.uwyo.edu/electrical/undergraduate/)

***** **Math/Science Elective:** One course should be selected from the ECE Math/Science Elective List available at www.uwyo.edu/electrical/undergraduate/. The Accreditation Board for Engineering and Technology (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. Please consult with an academic advisor.

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Computer Engineering - International Option Program Notes con't:

***** **CPEN Option Courses:** Complete any two of the following courses: COSC 3020 (Algorithms & Data Structure), COSC 4550 (Intro to Artificial Intelligence), COSC 4560 (Modern Robots & Softbots), COSC 4740 (Operating Systems Design), COSC 4760 (Computer Networks), COSC 4840 (Software Engineering), EE 4245 (Digital Signal Processing), EE 4360 (VLSI Design), EE 4530 (Digital Image Processing), EE 4590 (Real Time Embedded Systems), EE 4870 (Computer Network Hardware), EE 4970 (Graphical Interface), EE 4990 (Advanced Microprocessors), EE 5410 (Neural and Fuzzy Systems), EE 5630 (Advanced Image Processing), and EE 5650 (Object & Pattern Recognition). **NOTE:** Prerequisites for upper division electives vary. Consult an academic advisor and the course descriptions in the *University Catalog* for each course.