

ECE BS Degree Requirements**ARIZONA ONLINE**

Students must maintain a 2.5 engineering GPA to progress in the program.

Advanced standing is needed to take 300/400 level coursework.

U of A Foundations and General Education Requirements:

Course Name	Course # at UA	Units	Semester Offered	Comments
Intro to the Gen-Ed Experience	UNIV 101	1		
Exploring Perspectives - Artist		3		
Exploring Perspectives - Humanist		3		
Exploring Perspectives – Social Scientist		3		
Building Connections		3		
Building Connections		3		
Building Connections		3		
General Education Portfolio	UNIV 301	1		
Freshman Composition	ENGL 101	3		
Freshman Composition	ENGL 102	3		
Grade of B or higher required for MCW requirement				

Core Science/Math Requirements:

General Chemistry I Pre-req/concurrent enrollment: MATH 112	CHEM 151 or CHEM 141/145	4		Fulfills Gen-ed: EP: Natural Scientist – not listed above.
Introductory Mechanics Pre-req: MATH 122B or 125	PHYS 141	4		
Intro Electricity and Magnetism Pre-req: PHYS 141, MATH 129	PHYS 241	4		
Intro Optics and Thermodynamics Pre-req: PHYS 141, MATH 129	PHYS 143	2		
Calculus I Pre-req: appropriate math placement	MATH 125 or MATH 122A/B	3/5		
Calculus II Pre-req: MATH 122 A/B or MATH 125	MATH 129	3		
Vector Calculus Pre-req: MATH 129	MATH 223	4		
Discrete Math Pre-req: Math 129	MATH 243	3		
Differential Equations Pre-req: MATH 223	MATH 254	3		

Lower Division Engineering Requirements: (must complete with grade of C or higher)

Intro to Engineering	ENGR 102	3		Fulfills Gen-ed: EP: Natural Scientist – not listed above.
Programming Pre-req: Concurrent enrollment with MATH 120r	ECE 101	4	Spring	
Programming II Pre-req: ECE 101	ECE 201	3	Fall	
Digital Logic Pre-req: ECE 101	ECE 274A	4	Fall	

Basic Circuits Pre-req: MATH 129, PHYS 241	ECE 220	5	Spring	
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Electrical Engineering Option (must complete with grade of C or higher)

Upper division courses requiring Advanced Standing as per College of Engineering guidelines

Course Name	Course # at UA	Units	Semester Offered	Comments
Application of Engineering Mathematics	ECE 310	4	Fall Even	
Circuit Theory	ECE 320A	3	Fall	
Introductory Electromagnetics	ECE 381A	4	Spring Odd	
Engineering Ethics	ECE 311	1	Fall Odd	
Introduction to Communications	ECE 340A	3	Spring Odd	
Electronic Circuits	ECE 351C	4	Spring Even	
Microprocessor Organization	ECE 372A	4	Spring	
Device Electronics	ECE 352	3	Spring Even	
Technical Elective 1	<i>ECE 369a</i>	3	Fall Even	
Technical Elective 2	<i>ECE 373</i>	3	Fall Odd	
Technical Elective 3		3		
Technical Elective 4		3		
Technical Elective 5		3		
Technical Elective 6		3		
Technical Elective 7		3		
Technical Elective 8		3		
Engineering Senior Design (Fall)	ENGR 498A	3	Fall	
Engineering Senior Design (Spring)	ENGR 498B	3	Spring	

Computer Engineering Option (must complete with grade of C or higher)

Upper division courses requiring Advanced Standing as per College of Engineering guidelines

Course Name	Course # at UA	Units	Semester Offered	Comments
Application of Engineering Mathematics	ECE 310	4	Fall Even	
Circuit Theory	ECE 320A	3	Fall	
Fundamentals of Computer Organization	ECE 369A	4	Fall Even	
Engineering Ethics	ECE 311	1	Fall Even	
Introduction to Communications	ECE 340A	3	Spring Odd	
Electronic Circuits	ECE 351C	4	Spring Even	
Microprocessor Organization	ECE 372A	4	Spring	
Object-Oriented Software Design	ECE 373	3	Fall Odd	
Technical Elective 1	<i>ECE 381a</i>	3	Spring Odd	
Technical Elective 2	<i>ECE 352</i>	3	Spring Even	
Technical Elective 3		3		
Technical Elective 4		3		
Technical Elective 5		3		
Technical Elective 6		3		
Technical Elective 7		3		
Required Computer Course		3		
Engineering Senior Design (Fall)	ENGR 498A	3	Fall	
Engineering Senior Design (Spring)	ENGR 498B	3	Spring	