

**Electrical Engineering - Aerospace Concentration**

Degree requirements - 129 credits

Fall - 15-16 credits			Credits	Spring - 16-17 credits			Credits
<b>FIRST YEAR</b>	ECE102 or ECE103	Digital Circuit Logic (F,S) or DC Circuit Analysis (F,S; <i>MATH159 with a C or higher or MATH160 with a C or higher</i> )	3-4	ECE102 or ECE103	Digital Circuit Logic (F,S) or DC Circuit Analysis (F,S; <i>MATH159 with a C or higher or MATH160 with a C or higher</i> )	3-4	
	MATH160	Calculus for Physical Scientists I (F,S,SS; <i>MATH124 with a B or higher; MATH126 with a B or higher</i> )	4	MATH161	Calculus for Physical Scientists II (F,S,SS; <i>MATH124; MATH159 or MATH160</i> )	4	
	Elective	Free Elective (F,S,SS)	2	PH141	Physics for Scientists and Engineers I (F,S,SS; <i>MATH126; MATH159, may be taken concurrently or MATH160, may be taken concurrently</i> )	5	
	CS150B <sup>1</sup>	Culture and Coding: Python (F,S)	3	CS164 <sup>1</sup>	CS1 - Computational Thinking with Java (F,S; <i>CS150B with a B or higher or CS152 with a B or higher B or CS163</i> )	4	
	CO150 <sup>2</sup>	College Composition (F,S,SS; <i>CO130 or Placement</i> )	3				

Fall - 16 credits			Credits	Spring - 16 credits			Credits
<b>SECOND YEAR</b>	ECE251	Introduction to Microcontrollers and IoT (F,S; <i>ECE102 with a C or higher</i> )	4	ECE202	Circuit Theory Applications (S,SS; <i>ECE103 with a C or higher; MATH161 with a C or higher</i> )	4	
	SME Elective <sup>3</sup>	Science/Math/Engineering Elective (F,S,SS)	3	ECE232	Introduction to Project Practices (F,S; <i>ECE202, may be enrolled concurrently or ECE395B, may be enrolled concurrently or ECE495B, may be enrolled concurrently</i> )	1	
	PH142	Physics for Scientists and Engineers II (F,S,SS; <i>PH141; MATH161, may be taken concurrently</i> )	5	ECE303	Introduction to Communications Principles (S; <i>MATH261 with a C or higher; MATH340, may be taken concurrently</i> )	3	
	MATH261	Calculus for Physical Scientists III (F,S,SS; <i>MATH161</i> )	4	MATH340	Introduction to Ordinary Differential Equations (F,S,SS; <i>MATH261</i> )	4	
				CHEM111	General Chemistry I (F,S,SS; <i>MATH118 or MATH160 or MATH161 or MATH229 or MATH261; CHEM Prep or CHEM105</i> )	4	

Fall - 16 credits			Credits	Spring - 16 credits			Credits
<b>THIRD YEAR</b>	ECE311	Linear Systems Analysis I (F; <i>ECE202 with a C or higher; MATH340 with a C or higher; ECE331, may be taken concurrently; ECE341, may be taken concurrently</i> )	3	ECE312	Linear Systems Analysis II (S; <i>ECE311 with a C or higher</i> )	3	
	ECE331	Electronics Principles I (F; <i>ECE202 with a C or higher; MATH340 with a C or higher; PH142 with a C or higher; ECE311, may be taken concurrently; ECE341, may be taken concurrently</i> )	4	ECE332	Electronic Principles II (S; <i>ECE331 with a C or higher</i> )	4	
	ECE341	Electromagnetic Fields & Devices I (F; <i>ECE202 with a C or higher; MATH340 with a C or higher; PH142 with a C or higher; ECE311, may be taken concurrently; ECE331, may be taken concurrently</i> )	3	ECE342	Electromagnetic Fields & Devices II (S; <i>ECE341 with a C or higher</i> )	3	
	SME Elective <sup>3</sup>	Science/Math/Engineering Elective (F,S,SS)	3	SME Elective <sup>3</sup>	Science/Math/Engineering Elective (F,S,SS)	3	
	CO301B or JTC300	Writing in the Disciplines-Sciences (F,S; <i>CO150 or HONR193</i> ) or Strategic Writing and Communication (F,S,SS; <i>CO150 or HONR193</i> )	3	University Core	AUCC Category 1C, 3B, 3D (F,S,SS)	3	

Fall - 18 credits			Credits	Spring - 15 credits			Credits
<b>FOURTH YEAR</b>	ECE401	Senior Design Project I (F,S; <i>ECE311 and ECE312 with a C or higher; ECE331 and ECE332 with a C or higher; ECE341 and ECE342 with a C or higher</i> )	3	ECE402	Senior Design Project II (F,S; <i>ECE401</i> )	3	
	Technical Elective <sup>3</sup>	See Approved List (F,S)	3	Technical Elective <sup>3</sup>	See Approved List (F,S)	3	
	Aerospace Technical Elective <sup>3</sup>	See Approved List (F,S)	6	Aerospace Technical Elective <sup>3</sup>	See Approved List (F,S)	6	
	University Core	AUCC Category 1C, 3B, 3D (F,S,SS)	6	ECON202	Microeconomics (F,S,SS; <i>MATH117 or MATH118 or MATH160</i> )	3	

<sup>1</sup> Students may also chose one of the following: 1) Arts/Humanities AUCC + CS152 + CS162; or 2) Arts/Humanities AUCC + CS163<sup>2</sup> College Composition must be completed within the first 60 credits taken (CSU and transfer credits)<sup>3</sup> See list of approved courses on the ECE website: <https://www.engr.colostate.edu/ece/undergraduates/degree-programs/aerospace-concentration/>

All ECE majors must complete the Career Development Seminars - CDS: 1) Resume Writing; 2) Behavior Based Interviewing; and 3) Using LinkedIn. Workshop schedule located in Handshake.

ECE courses required for the major at the 100, 200, and 300 level must be passed with a minimum grade of C; grades below a C will require the student to retake the course. ECE courses designated as an elective are exempt from the C or higher minimum grade requirement.