

Electrical Engineering - Aerospace Concentration

Degree requirements - 126 credits

FIRST YEAR	Fall - 13-14 credits			Credits	Spring - 16-17 credits			Credits
	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 Fulfills AUCC Category 1B	Calculus for Physical Scientists I (F,S,SS; <i>MATH124 with a B or higher; MATH126 with a B or higher or MATH127 with a B or higher</i>)		4	MATH161	Calculus for Physical Scientists II (F,S,SS; <i>MATH124 or MATH127; MATH159 or MATH160</i>)		4
	CS150B ¹ Fulfills AUCC Category 3B	Culture and Coding: Python (F,S)		3	PH141 Fulfills AUCC Category 3A	Physics for Scientists and Engineers I (F,S,SS; <i>MATH159, may be taken concurrently or MATH160, may be taken concurrently</i>)		5
	CO150 ² Fulfills AUCC Category 1A	College Composition (F,S,SS; <i>CO130 or Placement</i>)		3	CS164 ¹	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

SECOND YEAR	Fall - 16 credits			Credits	Spring - 16 credits			Credits
	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 Electives ³	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</i>)		1
	PH142 Fulfills AUCC Category 3A	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 MATH127 MATH160 or MATH161 or MATH229 or MATH261</i>)		4

THIRD YEAR	Fall - 15 credits			Credits	Spring - 16 credits			Credits
	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 Fulfills AUCC Category 4	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 Electives ³	Science/Math/Engineering Elective (F,S,SS)		2	SME Electives ³	Science/Math/Engineering Elective (F,S,SS)		3
	CO301B or JTC300 Fulfills AUCC Category 2	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

FOURTH YEAR	Fall - 18 credits			Credits	Spring - 15 credits			Credits
	ECE401 Fulfills AUCC Category 4	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 Fulfills AUCC Category 4	Senior Design Project II (F,S; <i>ECE401</i>)		3
	Technical Electives ³	See Approved List (F,S)		3	Technical Electives ³	See Approved List (F,S)		3
	Aerospace Technical Electives ³	See Approved List (F,S)		6	Aerospace Technical Electives ³	See Approved List (F,S)		6
	University Core	AUCC Category 1C, 3B, 3D (F,S,SS)		6	ECON202 Fulfills AUCC Category 3C	Microeconomics (F,S,SS; <i>MATH117 or MATH118 or MATH127 or MATH160</i>)		3

¹ Students may also choose one of the following: 1) Arts/Humanities AUCC + CS152 + CS162; or 2) Arts/Humanities AUCC + CS163² College Composition must be completed within the first 60 credits taken (CSU and transfer credits)³ See list of approved courses on the ECE website: <https://www.engr.colostate.edu/ece/undergraduates/degree-programs/aerospace-concentration/>

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.