ELECTRICAL AND COMPUTER ENGINEERING, BACHELOR OF SCIENCE (BS)/PROFESSIONAL PILOT (CCBC)

Course	Title	Hours
First Year		
Fall		
AVIP 160	Private Pilot Flight Theory (taken at CCBC)	7
AVIP 170	Privoate Pilot Flight Certification (taken at CCBC)	3
MATH 125	Calculus I (taken at CCBC)	4
ENGR 110	Introduction to Engineering	2
SUBJ 139	Foundation of Academic Discovery	3
	Hours	**19**
Spring		
AVIP 120	Foundations and Development of Aviation (taken at CCBC)	3
CIST 100	Introduction to Information Technology (taken at CCBC)	3
WRIT 101	English Composition (taken at CCBC)	3
MATH 230	Calculus II	4
PHYS 216	University Physics 1 with Lab	4
	Hours	**17**
Second Year		
Fall		
AVIP 180	Instrument Flight Theory (taken at CCBC)	7
AVIP 190	Instrument Flight Rating (taken at CCBC)	2
LITR 210	Concepts of Literature (taken at CCBC)	3
PHYS 217	University Physics 2 with Lab	4
	Hours	**16**
Spring		
AVIP 205	Aircraft Engines & Systems (taken at CCBC)	4
METR 140	Foundations in Meteorology (taken at CCBC)	4
ENGR 210	Statics	3
ENGR 120	Engineering Design Tools	2
ENGR 250 & ENGR 251	Circuit Analysis I and Circuit Analysis Lab	4
	Hours	**17**
Third Year		
Fall		
AVIP 215	Commercial Flight Theory (taken at CCBC)	5
AVIP 220	Commercial Flight Certification I (taken at CCBC)	3
MATH 231	Calculus III	4
MATH 232	Linear Algebra	3
CPSC 146	Programming Principles	3
	Hours	**18**
Spring		
AVIP 225	Commercial Flight Certification II (taken at CCBC)	3
AVIP 260	Human Factors Theory (taken at CCBC)	3
AVIP 270	Aerodynamics of Flight (taken at CCBC)	3
MATH 301	Differential Equations I	3
CPSC 246	Object-Oriented Programming	3
Creative & Aesthetic Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
	Hours	**18**
Fourth Year		
Fall		
AVIP 275	Certified Flight Instructor Theory (taken at CCBC)	2
Select 2 one of the following:		3-4
AVIP 250	Multi-Engine Rating (taken at CCBC)	
AVIP 280	Multi-Engine Rating (taken at CCBC)	
AVIP 285	Certfied Flight Instructor (taken at CCBC)	
ECSE 230	Instrumentation with Lab	3
ECSE 310	Circuit Analysis II	3
ECSE 350	Signals and Systems	3
MECH 330	Introduction to Mechatronics	4
	Hours	**18-19**
Spring		
ECSE 320	Electrical Circuit Design	3
ECSE 340	Processor Design and Structure	3
ECSE 410	Energy Conversion	3
ENGL 205	Introduction to Professional Writing	3
STAT 350	Applied Statistics	3
	Hours	**15**
Fifth Year		
Fall		
ENGR 340	Engineering Economics	3
ECSE 360	Engineering Electromagnetics	3
CPSC 423	Computer Networks	3
MECH 411	Automatic Control Systems	3
ECSE 460	Capstone Design I	3
ESCE Elective		3
	Hours	**18**
Spring		
ECSE 461	Capstone Design II	3
ECSE Elective		3
Humanities Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
Select 1 one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLI 235	Civil Discourse and Democracy	
	Hours	**16**
	Total Hours**	**172-173**