



Associate in Science (AS) Degree
 MCC/ASU Fulton Electrical Engineering (Power and Energy Systems) Advisement Flow Chart
 2009-2010 Catalog Year

First Year Composition	Chemistry Requirements	Physics Requirements	Mathematics Requirements	Engineering Requirements
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> FYC ENG 101 or 107 First-Year Comp (3) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px;"> FYC ENG 102 or 108 First-Year Comp (3) Completed: _____ </div>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Program Prerequisites</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CHM 130/130LL General Chem I (4) Completed: _____ </div> </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CHM 151/151LL General Chem I (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px;"> CHM 152/152LL General Chem II (4) Completed: _____ </div>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Program Prerequisites</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> PHY 111 General Physics I (4) Completed: _____ </div> </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> PHY 112 General Physics 2 (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> SQ PHY 121 Univ Physics I (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px;"> SQ PHY 131 Univ Physics II (4) Completed: _____ </div>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Program Prerequisites</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> MAT 150, 151 or 152 College Algebra (3) Completed: _____ </div> </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> MAT 182 or 187 Trig or PreCalc (3) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> MA MAT 221 Calculus I (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> MAT 231 Calculus II (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> MAT 241 Calculus III (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px;"> MAT 262 Diff Equations (3) Completed: _____ </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CSC 100 Intro to Comp Sci (3) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CSC 120 Digital Design (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CSC 230 Computer Org (4) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> ECE 102 Engineering Anal (2) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> ECE 103 Engineering Design (2) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> ECE 111 Bioengineering Sys (3) Completed: _____ </div> <div style="text-align: center;">↓</div> <div style="border: 1px solid black; padding: 5px;"> EEE 202 Circuits & Devices (5) Completed: _____ </div>
Social & Behavioral Sciences				
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> SB ECN 211 or 212 3 Credits Completed: _____ </div> <div style="border: 1px solid black; padding: 5px;"> SB _____ 3 Credits Completed: _____ </div>	<p>Note: Students who have not completed high school chemistry or completed high school chemistry more than two years prior to enrolling in CHM 151 should take CHM 130/130LL.</p>	<p>Note: Students who have not completed high school physics or completed high school physics more than two years prior to enrolling in PHY 121 should take PHY 111.</p>		
Humanities and Fine Arts				
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> HU _____ 3 Credits Completed: _____ </div> <div style="border: 1px solid black; padding: 5px;"> HU _____ 3 Credits Completed: _____ </div>				
Reading and Communication				
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Oral Communication COM 230 (0-3 Credits) Completed: _____ </div> <div style="border: 1px solid black; padding: 5px;"> Critical Reading CRE 101 (0-3 Credits) Completed: _____ </div>				

Course Subject and Title <i>(courses in bold/shading are critical)</i>	Hrs.	Upper Division	Completed ATP: <input type="checkbox"/> Yes <input type="checkbox"/> No		Completed AGE: <input type="checkbox"/> Yes <input type="checkbox"/> No
			Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes
TERM ONE: 0-15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	<input type="checkbox"/>			<ul style="list-style-type: none"> • Complete MAT 265 with a minimum grade of "C" • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course * CHM 113 is a prerequisite and does not apply towards degree credit **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major course: A minimum cumulative GPA of 2.0 required.
CHM 114: General Chemistry for Engineers OR CHM 116: General Chemistry II *	4	<input type="checkbox"/>			
# CSE 100: Principles of Programming with C++ (CS) OR # EEE 120: Digital Design Fundamentals	3	<input type="checkbox"/>			
# EEE 101: Introduction to Engineering Design OR BME 111: Engineering Perspectives on Biological Systems	2 or 3	<input type="checkbox"/>			
MAT 265: Calculus for Engineers I	3	<input type="checkbox"/>		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	<input type="checkbox"/>		Grade of C	
TERM TWO: 16-30 CREDIT HOURS					
# CSE 100: Principles of Programming with C++ (CS) OR # EEE 120: Digital Design Fundamentals	3	<input type="checkbox"/>			<ul style="list-style-type: none"> • Complete EEE 101 • Complete MAT 266; PHY 121 & 122 each with a minimum grade of "C" # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# EEE 101: Introduction to Engineering Design OR BME 111: Engineering Perspectives on Biological Systems	2 or 3	<input type="checkbox"/>			
MAT 266: Calculus for Engineers II	3	<input type="checkbox"/>		Grade of C	
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1	<input type="checkbox"/>		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	<input type="checkbox"/>		Grade of C	
TERM THREE: 31-45 CREDIT HOURS					
# EEE 202: Circuits I	4	<input type="checkbox"/>			<ul style="list-style-type: none"> • Complete EEE 202; MAT 267, 274 or 275 and PHY 131, 132 with a minimum grade of "C" • Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 267: Calculus for Engineers III	3	<input type="checkbox"/>		Grade of C	
MAT 274: Elementary Differential Equations (MA) OR MAT 275: Modern Differential Equations (MA)	3	<input type="checkbox"/>		Grade of C	
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II (SQ)	3/1	<input type="checkbox"/>		Grade of C	
TERM FOUR: 46-60 CREDIT HOURS					
# EEE 203: Signals and Systems I	3	<input type="checkbox"/>			<ul style="list-style-type: none"> • Complete EEE 203 and EEE 241 # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# EEE 241: Fundamentals of Electromagnetics	3	<input type="checkbox"/>			
MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra	3	<input checked="" type="checkbox"/>		Grade of C	
PHY 241: University Physics III	3	<input type="checkbox"/>		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	<input type="checkbox"/>			
TERM FIVE: 61-75 CREDIT HOURS					
# EEE 230: Computer Organization and Assembly Language Programming	3	<input type="checkbox"/>			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# EEE 334: Circuits II	4	<input checked="" type="checkbox"/>			
# EEE 350: Random Signal Analysis	3	<input checked="" type="checkbox"/>			
# EEE 360: Energy Systems and Power Electronics	4	<input checked="" type="checkbox"/>			
TERM SIX: 76-90 CREDIT HOURS					
ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	3	<input type="checkbox"/>			<ul style="list-style-type: none"> • Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# Area Pathway Course	4	<input checked="" type="checkbox"/>			
# Area Pathway Course	4	<input checked="" type="checkbox"/>			
# Area Pathway Course	4	<input checked="" type="checkbox"/>			
TERM SEVEN: 91-105 CREDIT HOURS					
# EEE 488: Senior Design Laboratory I (L)	3	<input checked="" type="checkbox"/>			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
Select 2					
# EEE 460: Nuclear Concepts for the 21 st Century (3 hrs)					
# EEE 463: Electrical Power Plant (3 hrs)					
# EEE 470: Electric Power Devices (3 hrs)					
# EEE 471: Power System Analysis (3 hrs)					
# EEE 473: Electrical Machinery (3 hrs)					
# EEE 498: Pro-Seminar (Power Elec.) (3 hrs)					
# EEE 498: Pro-Seminar (Solar Energy) (3 hrs)	6	<input checked="" type="checkbox"/>			
GCU 364: Energy in the Global Arena (SB, G)	3	<input checked="" type="checkbox"/>			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	<input type="checkbox"/>			

Course Subject and Title <i>(courses in bold/shading are critical)</i>	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes
TERM EIGHT: 106-120 CREDIT HOURS					
# EEE 489: Senior Design Laboratory II (L)	3	<input checked="" type="checkbox"/>			<ul style="list-style-type: none"> See Degree Audit Reporting System (DARS) for approved list of Technical Electives # Designates Major Course: A minimum cumulative GPA of 2.0 required.
Select 1 not previously selected:					
# EEE 460: Nuclear Concepts for the 21 st Century (3 hrs)					
# EEE 463: Electrical Power Plant (3 hrs)					
# EEE 470: Electric Power Devices (3 hrs)					
# EEE 471: Power System Analysis (3 hrs)					
# EEE 473: Electrical Machinery (3 hrs)					
# EEE 498: Pro-Seminar (Power Elec.) (3 hrs)					
# EEE 498: Pro-Seminar (Solar Energy) (3 hrs)	3	<input checked="" type="checkbox"/>			
# Technical Elective	3	<input checked="" type="checkbox"/>			
# Technical Elective	3	<input checked="" type="checkbox"/>			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	<input type="checkbox"/>			

Graduation Requirements Summary:

Total Hours Regular Curriculum (120)	Total UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.00 minimum GPA)	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L)
 - Mathematical Studies (MA)
 - Computer/Statistics/Quantitative applications (CS)
 - Humanities, Fine Arts, and Design (HU)
 - Social and Behavioral Sciences (SB)
 - Natural Science-Quantitative (SQ)
 - Natural Science-General (SG)
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C)
 - Global Awareness (G)
 - Historical Awareness (H)
- First-Year Composition

Additional Notes: