

## Curriculum Guide for AS to BS Electrical Engineering at WCU

## Freshman/First Year

1st Semester					2nd Semester				
Fall					Spring				
CC Course	WCU Course Equivalent	LS Cat.	Credit Hours	Required/Notes	CC Course	WCU Course Equivalent	LS Cat.	Credit Hours	Required/Notes
ENG 111	ENGL 101	C1	3		ENG 112	ENGL 202	C1	3	
MAT 171	MATH 130		4	Pre-Requisite	COM 231 (Other Hours)	COMM 201	C3	3	
Social/Behavioral Sciences (Other Hours)	History	P3	3		MAT 172	MATH 146		3	Pre-Requisite
Humanities/Fine Arts	Fine & Performing Arts	P5	3		Social/Behavioral Sciences	Social Sciences	P1	3	
CHM 151	CHEM 139	C5	4	Required	CHM 152	CHEM 140		4	Not required for WCU Program
ACA 122	USI 130		1						
Total Credit Hours					Total Credit Hours				
18					16				

\*This assumes placement into college level courses. This is only meant to be a guide. Please see your academic advisor to develop your individual plan.

\***Electrical Engineering is unlikely to be completed in a 4 year time span.**

## Sophomore/Second Year

3rd Semester					4th Semester				
Fall					Spring				
CC Course	WCU Course Equivalent	LS Cat.	Credit Hours	Required/Notes	CC Course	WCU Course Equivalent	LS Cat.	Credit Hours	Required/Notes
HEA 110/PED 110 (Other Hours)	Wellness	C4	3	**PED110= 2cred	PHY 251	PHYS 230	C5	4	Required
Social/Behavioral Sciences	Social Sciences	P1	3		EGR 150 (Other Hours)	ENGR 199		2	Required
Social/Behavioral Sciences (Global Perspective)	World Cultures	P6	3		HUM 220 (H/Fine Arts)	Humanities	P4	3	
MAT 271 (Other Hours)	MATH 153	C2	4	Required	MAT 272	MATH 255		4	Required
Total Credit Hours					Total Credit Hours				
13					13				

\*\*A.S. is a 60 Hour Program \*If cannot take Required Courses, plan for more time at WCU.

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UGETC=purple shading

Other required hours=blue shading

Suggested Course Sequence to transfer from NCCCS  
Junior/Third Year (at WCU)

5th Semester      Fall

6th Semester      Spring

WCU Course	Course Title	Credit Hours	Notes	WCU Course	Course Title	Credit Hours	Notes
MATH 320	Ordinary Differential Equations	3		MATH 256	Calculus III	4	
PHYS 231	General Physics II (Lecture Only)	3	Spring only	PHYS 310	Modern Physics	4	
EE 201	Network Theory I	3		EE 202	Network Theory II	3	
EE 221	Logical Systems Design I	3		EE 212	Logic & Network Lab	1	
EE 211	Instrumentation & Networks Lab	1		EE 200	Computer Utilization	3	
ENGR 200	Engineering Practices and Principles II	3					
Total Credit Hours				16			
				Total Credit Hours			
				15			

Senior/Fourth Year

7th Semester      Fall

8th Semester      Spring

WCU Course	Course Title	Credit Hours	Notes	WCU Course	Course Title	Credit Hours	Notes
MATH 370	Probability & Statistics I	3		ENGR 402	System Dynamics and Control	3	
EE 311	Systems & Electronics Lab	1		EE 312	Electronic Devices Lab	1	
EE 321	Electromagnetic Fields	3		EE 322	Electromagnetic Waves	3	
EE 331	Fundamentals of Electronics & Semiconductors	3		EE 332	Electronics	3	
EE 351	Systems Analysis I	3		ENGR 350	Engineering Practices and Principles III	3	
Total Credit Hours				13			
				Total Credit Hours			
				13			

Suggested Course Sequence to transfer from NCCCS

Senior/Fifth Year

9th Semester

Fall

10th Semester

Spring

WCU Course	Course Title	Credit Hours	Notes	WCU Course	Course Title	Credit Hours	Notes
ENGR 400	Engineering Capstone I	3		ENGR 450	Engineering Capstone II	3	
EE 411	Analog and Digital Communications	3		EE 413	Digital Communication Systems	3	
EE 421	Digital System Design	3		EE 424	Digital Signal Processing	3	
Technical Elective		3					
Total Credit Hours				9			

Total Credit Hours 138

Technical Elective is:

ANY 3 credit hour 400-level EE course NOT REQUIRED in the Electrical Engineering Core

PHYS 322

OR, ANY 3 credit hour 400-level PHYS Course

The Electrical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

NOTE:

- a. Liberal studies (General Education) requirements will be waived for students transferring to WCU with the AS degree.
- b. A grade of C or above is required to obtain transfer credit at WCU.
- d. Students in the BSEE program at WCU need 126 credits to graduate.
- e. Students following the above-listed sequence will receive a Math minor IF they take one additional 300-400 level MATH at WCU.
- f. At least 30 hours of 300-400 level courses must be taken at WCU.