

2021-2022
Academic Year

Electrical and Computer Engineering, BS Electronics Concentration



ABET accredited

Course offerings subject to change

Major credits: 146 (not including GURs)

Admissions information - <https://engineeringdesign.wvu.edu/>

Academic advising available - see contact information below

Pre-major coursework in grey area.

Courses in **BOLD** required to apply to full major.

Fall

Winter

Spring

First Year	MATH 124 (5) Calculus I	MATH 125 (5) Calculus II	APPLY TO MAJOR
	PHYS 161 (5) Physics w/ Calc I	PHYS 162 (5) Physics w/ Calc II	EECE 111 Circuits Analysis I
	CSCI 140 or 141 (4) Programm. Fundamen.	EECE 108 & 109 (2) Intro to Elect. & Comp	MATH 204 (4) Linear Algebra
	ENGR 101 (2) Engineering, Design, Society	CHEM 161 (5) General Chemistry I	PHYS 163 (5) Physics w/ Calc III

ENGR 101 is optional but highly recommended

Second Year	MAJOR COURSES BEGIN	EECE 220 (4) Electronics I	EECE 310 (4) Continuous Systems
	EECE 210 (4) Circuit Analysis II	EECE 244 (4) Embedded Microcontrollers	EECE 333 (4) Digital System Design*
	EECE 233 (4) Digital Electronics	MATH 331 (4) Differential Equations	MATH 345 (4) Engineering Statistics
	MATH 224 (5) Multivariable Calculus		EECE 397A (4) Wireless Networking/Applic.*

Third Year	EECE 311 (4) Discrete Systems	EECE 321 (4) Electronic Systems*	EECE 361 (4) Signal Propagation*
	EECE 344 (4) Embedded Microcontrollers II	EECE 360 (4) Communication Systems	EECE 433 (4) Digital Signal Processing
	EECE 320 (4) Electronics II	EECE 444 (4) Embedded Systems	EECE 460 (4) Digital Comm. Systems
		EECE 397B (4) Machine Learning *	

Fourth Year	EECE 372 (4) Electromechanical Devices	EECE 492 (4) Project Hardware Design	EECE 493 (4) Project System Implementation
	EECE 480 (4) Control Systems	ENG 302 (WP) Technical Writing	Tech Elective
	EECE 491 (2) Project Proposal	Tech Elective	

Engineering & Design

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<http://engineeringdesign.wvu.edu>

Pre-major Advisor:

Lisa Ochs lisa.ochs@wwu.edu

NOTES & EXCEPTIONS

Pre-majors apply for the major at the end of spring and/or summer quarters

Students not enrolled in MATH 124 and PHYS 161 fall quarter may not finish in four years

Math 341 may be substituted for MATH 345; CSCI 141 may be substituted for CSCI 140

*Must complete three of the five courses: EECE 321, 333, 361, 397A, or 397B

Students must complete General University Requirements in addition to major courses

Electrical and Computer Engineering, BS

Electronics Concentration



Admissions

Students must first be accepted by the university. The program accepts major applications at the end of spring and summer quarters. Accepted students start major coursework fall quarter.

Required coursework to apply		Required questionnaire	Admissions statistics
MATH 124	Calculus II	Applications will include a required questionnaire. The questionnaire will ask about the applicant's goals, demonstrated leadership experiences, collaboration and teamwork examples, strategies for studying, and ability to overcome adversity.	The program typically accepts 48 students annually; 36 Electronics and 12 Energy students.
MATH 125	Calculus II		
MATH 204	Linear Algebra		
PHYS 161	Physics w/ Calc I		
PHYS 162	Physics w/ Calc II		
CSCI 140 or 141	Programming Fundamentals		
EECE 111	Circuit Analysis I		
EECE 108/109*	Intro to Electrical & Computer Engineering		
* may be waived for transfer student admissions			
EECE 108 must be taken at next opportunity			
Other courses considered, but not required to apply		Applications due	
MATH 224	Multivariable Calc and Geometry I	Applications are accepted at the end of every spring quarter and the beginning of fall quarter. Accepted students start major coursework fall quarter. See department website for specific dates.	
		Transfer students	
MATH 331	Differential Equations	Transfer students are encouraged to contact the pre-major advisor to discuss equivalencies and transfer timing.	
MATH 345	Engineering Statistics		
PHYS 163	Physics w/ Calc III		
CHEM 161	General Chemistry I		

Technical Electives

Majors are required to complete 6 credits of technical electives before graduation. Check the website for approved courses.

Faculty Contact Information

Associate Professor Xichen Jiang, jiangx2@wwu.edu
 Assistant Professor Junaid Khan, khanj@wwu.edu
 Professor Andy Klein, kleina5@wwu.edu
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 Professor Todd Morton, toddm@wwu.edu
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 Assistant Professor Bhaskar Ramasubramian