

#### ASSOCIATE OF SCIENCE

## **PRE-ENGINEERING - ELECTRICAL ENGINEERING**

**2023-24 Catalog** 

Effective Summer 2023

4102



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business, Engineering, and Information Technologies Division

Engineering Technology Department

### ARTICULATING TO A BS IN ELECTRICAL ENGINEERING WITH THE UNIVERSITY OF AKRON

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
FRESHMAN EXI	PERIENCE					
SSC101	Student Success Seminar^^	1	Take first semester			
ENGLISH COMI	POSITION & ORAL COMMUNICATION					
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency			
SOCIAL & BEHA	AVIORAL SCIENCES					
BUS221	Microeconomics^	3	IDS102 or Proficiency			
SOC225	Diversity in American Society^	3	IDS102 or Proficiency			
ARTS & HUMANITIES						
HIS122	U.S. History II from 1877	3				
PHL122	Ethics	3				
NATURAL SCIE	NCES					
CHM141	General Chemistry I (lab)^▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)			
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224			
MATHEMATICS	S, STATISTICS AND LOGIC					
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency			
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency			
MTH224	Analytical Geometry and Calculus II	4	MTH223			
MTH227	Ordinary Differential Equations	3	MTH224			
CONCENTRATION	ON CORE					
MTH225	Analytical Geometry and Calculus III	4	MTH224			
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) and EET120			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)			
CST121	Modeling and Simulation	3	MTH221 or MTH223			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221			
	TOTAL CREDIT HOURS	64				

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

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# PRE-ENGINEERING – ELECTRICAL ENGINEERING

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Elective Additional Credit

Bridge courses that can be taken at Stark State College, prior to attending the University of Akron, that apply towards the University of Akron BS Degree: COM121, ENG221, PHY222, MTH227 and CSE233. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Akron advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer 36 approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact the University of Akron's Transfer Student Services Center (330-972-7009) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to the University of Akron's Engineering BS programs.

First Semester		Credit Hours	<u>Pre- or Co-requisites</u>
SSC101	Student Success Seminar^^	1	Take first semester
CHM141	General Chemistry I (lab)^▲	5	(CHM101 or Proficiency) or
			(MTH024 or MTH025 or Proficiency)
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MTH135	Precalculus^ – A student may take MTH125	5	MTH025 or Proficiency
	(College Algebra) and MTH130 (Trigonometry)		
EET100	over two semesters to satisfy this requirement.	4	D C MT1127
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125
		10	or Pre-Co-MTH135
G 1G 4		18	
Second Semester SOC225	Discouritorio Associato Conieta	2	IDS102 P £
	Diversity in American Society^	3	IDS102 or Proficiency
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or
EE1122	AC Circuit Alialysis	4	Pre-Co-MTH135) and EET120
PHL122	Ethics	<u>3</u>	Tie co willings) and EE 1120
		14	
Summer Semester			
MTH224	Analytical Geometry and Calculus II	4	MTH223
	, , , , , , , , , , , , , , , , , , ,		
Third Semester			
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224
MTH225	Analytical Geometry and Calculus III	4	MTH224
MET124	Statics and Strength of Materials	<u>4</u>	Pre-Co-PHY121 or Pre-Co-PHY221
	•	13	
Fourth Semester			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
			and (ITD100 or Proficiency)
MTH227	Ordinary Differential Equations	3	MTH224
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
CST121	Modeling and Simulation	3	MTH221 or MTH223
HIS122	U.S. History II from 1877	<u>3</u>	
		15	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement scores

<sup>^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

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