

**Associate in Science in Engineering Science
at Montgomery County Community College
to the Bachelor of Science in Electrical and Computer Engineering with Bioelectrical Engineering Concentration
at Temple University College of Engineering
(Effective Fall 2025)**

MCCC Recommended Course			Temple University Equivalent	
First Semester		Credits	First Semester	
ENG 101	English Composition I	3	ENG 0802	Analytical Reading & Writing
EGR 111	Engineering Computations	3	CIS 1057 <i>Note 2</i>	Computer Programming in C
EGR 102	Introduction to Engineering	3	ENGR 1101	Introduction to Engineering & Engineering Technology
MAT 190	Calculus I	4	MATH 1041	Calculus I
PHY 151	Principles of Physics I	4	PHYS 1061	Elementary Classical Physics I
Semester Total:		17		
Second Semester			Second Semester	
ENG 102	English Composition II	3	ENG T***	English Elective
MAT 201	Calculus II	4	MATH 1042	Calculus II
PHY 152	Principles of Physics II	4	PHYS 1062	Elementary Classical Physics II
EGR 115	Engineering Graphics	3	ENGR 1117 <i>Note 3</i>	Engineering Graphics
Elective	Oral Communication	3		Dependent upon course selection <i>Note 8</i>
Semester Total:		17		
Third Semester			Third Semester	
MAT 223	Differential Equations	4	Math 2041	Differential Equations
CHE 151	Principles of Chemistry I	4	CHEM 1031 <i>Note 4</i> AND CHEM 1033	General Chemistry I AND General Chemistry Laboratory I
Elective	Cultural Awareness and Diversity	3		Dependent upon course selection <i>Note 8</i>
EGR 211 <i>Note 6</i>	Linear Electrical Systems I	4	ECE 2312 AND ECE 2313	Electrical Engineering Science I AND Electrical Engineering Science I Lab
Semester Total:		15		
Fourth Semester			Fourth Semester	
MAT 202	Calculus III	4	MATH 2043 <i>Note 5</i>	Calculus III
EGR 214 <i>Note 7</i>	Linear Electrical Systems II	4	ECE 2322 AND ECE 2323	Electrical Engineering Science II AND Electrical Engineering Science II Lab
EGR 210	Digital Systems	4	ECE 2612 AND ECE 2613	Digital Circuit Design AND AND Digital Circuit Design Laboratory
Elective	Aesthetic Sensibility	3		Dependent upon course selection <i>Note 8</i>
Semester Total:		15		
Total Credits Transferred		64		

Notes:

- 1) A grade of C or higher must be obtained in the above listed courses to meet Temple's requirements for transfer credit.
- 2) CIS 1057: Computer Programming will satisfy the major requirement of ENGR 1102: Intro to Engineering Problem Solving at Temple through DARS exception.
- 3) ENGR 1117: Engineering Graphics will satisfy a required Math, Science, or Engineering Elective through DARS exception.
- 4) CHEM 1031: General Chemistry I will satisfy the major requirement of CHEM 1035: Chemistry for Engineers at Temple through DARS exception.
- 5) MATH 2043: Calculus III will satisfy the major requirement of ENGR 2011/2013 Engineer Analysis and Applications and Lab through DARS exception.

- 6) EGR 211: Linear Electrical Systems I will satisfy the major requirement of ECE 2342: Circuits and Electronics I through DARS exception.
- 7) EGR 214: Linear Electrical Systems II will satisfy a required ECE Technical Elective through DARS exception.
- 8) To see how your courses might transfer, consult Temple's Transfer Equivalency Tool:
<http://admissions.temple.edu/transfer-equivalency-tool/>

If the suggested classes are successfully completed at Montgomery County Community College and an Associate in Science in Engineering Science is awarded, the remaining four semesters for the **Bachelor of Science in Electrical and Computer Engineering (BEC)** are as follows:

Remaining Requirements at Temple University		
Fifth Semester		Credits
ECE 3612	Processor Systems	3
ECE 3613	Processor Systems Laboratory	1
ECE 1111	Engineering Computation I	4
ECE 2352	Circuits and Electronics II	5
ENGR 2101 ^{Note b}	Professional Development Seminar for Engineers	1
Free Elective	Dependent upon course selection	2
Semester Total:		16
Sixth Semester		
ECE 3516	Signals and Systems	5
ECE 3822	Engineering Computation II	3
ENGR 2196	Technical Communication [WI]	3
BIOL 1012	General Biology II	4
Free Elective	Dependent upon course selection	1
Semester Total:		16
Seventh Semester		
ECE 4176	Senior Design Project I: ECE	3
ECE 3712	Introduction to Electromagnetic Fields and Waves	3
ECE 3522	Stochastic Processes in Signals and Systems	3
KINS 1223	Human Anatomy & Physiology I	4
Free Elective	Dependent upon course selection	3
Semester Total:		16
Eighth Semester		
ENGR 4296	Capstone Senior Design Project	3
ECE 4522	Digital Signal Processing	3
KINS 1224	Human Anatomy & Physiology II	4
Free Elective	Dependent upon course selection	3
Free Elective	Dependent upon course selection	3
Semester Total:		16
<i>Credits transferred from the A.S. in Engineering Science at Montgomery County Community College:</i>		64
<i>Remaining credits to complete B.S. in Electrical and Computer Engineering (BEC) at Temple University:</i>		64
Total Credits Completed to Satisfy the Requirements for the B.S. in Electrical and Computer Engineering (BEC):		128

Notes:

- Students under this agreement have satisfied the General Education requirements at Temple.
- ENGR 2101: Professional Development Seminar for Engineers will satisfy the ENGR 1001: First Year Seminar requirement through DARS exception.
- The required ECE Technical Elective is satisfied by MCCC's EGR 214 course (4 credits).
- The Math, Science, or Engineering Elective is satisfied by MCC's EGR 115 course.
- Temple University requires that all undergraduate degree candidates complete 45 hours of the last 60 hours of the degree or program as matriculated students at Temple University. If a matriculated student previously took Temple courses on a non-matriculated basis, those courses are counted towards this requirement.
- DARS EXCEPTIONS TO BE ENTERED BY TEMPLE ACADEMIC ADVISORS**
Undergraduate students and their advisors use the Degree Audit Reporting System to plan and track a student's academic career at Temple. DARS works in concert with our Banner Student information system to show how a student's course work to date, including transferred courses, will fulfill the academic requirements necessary to complete a degree in the major field of study.