

# ENGINEERING TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

## Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
<b>Required Courses</b>			
CHM130	Fundamental Chemistry	3	
CHM130LL	Fundamental Chemistry Laboratory	1	
OR			
CHM150	General Chemistry I	4	
or CHM151	General Chemistry I		
CHM151LL	General Chemistry I Laboratory	1	
OR			
CHM130AA	Fundamental Chemistry with Lab	4	
or CHM140AA	General Chemistry for Engineers with Lab		
or CHM150AA	General Chemistry I with Lab		
or CHM151AA	General Chemistry I with Lab		
CIS105	Survey of Computer Information Systems	3	
Select one of the following:			
CIS150	Programming Fundamentals		
CIS150AB	Object-Oriented Programming Fundamentals		
CIS156	Python Programming: Level I		
CIS159	Visual Basic Programming I		
CIS162AB	C++: Level I		
CIS162AD	C#: Level I		
CIS163AA	Java Programming: Level I		
CSC100	Introduction to Computer Science (C++)		

CSC100AA	Introduction to Computer Science (C++)		
CSC100AB	Introduction to Computer Science (C++)		
CSC110	Introduction to Computer Science (Java)		
CSC110AA	Introduction to Computer Science (Java)		
CSC110AB	Introduction to Computer Science (Java)		
ECE102	Engineering Analysis Tools and Techniques	2	
ECE103	Engineering Problem Solving and Design	2	
ECE216	Computer-Aided Engineering	2	
ECE216LL	Computer-Aided Engineering Laboratory	1	
or ECE216AA	Computer-Aided Engineering		
ECE104	EPICS Gold I	0.5-4	
or ECE294AA	Special Topics in Engineering		
or ECE294AB	Special Topics in Engineering		
or ECE294AC	Special Topics in Engineering		
or ECE296WA	Cooperative Education		
or ECE296WB	Cooperative Education		
or ECE296WC	Cooperative Education		
or ECE296WD	Cooperative Education		
or ECE298AA	Special Projects		
or ECE298AB	Special Projects		
or ECE298AC	Special Projects		
FYE101	Introduction to College, Career and Personal Success	1	
or FYE103	Exploration of College, Career and Personal Success		
PHY111	General Physics I	4	
or PHY121	University Physics I: Mechanics		
PHY112	General Physics II	4	
or PHY131	University Physics II: Electricity and Magnetism		
<b>Restricted Electives</b>			

In consultation with an Academic, Faculty, or Program Advisor, complete 10-14 credits of coursework from any of the areas below that best align with academic and professional goals. Students may select courses from multiple areas.

#### General Application

Select one of the following programming courses not already taken in required courses:

CIS150	Programming Fundamentals
CIS150AB	Object-Oriented Programming Fundamentals
CIS156	Python Programming: Level I
CIS159	Visual Basic Programming I
CIS162AB	C++: Level I
CIS162AD	C#: Level I
CIS163AA	Java Programming: Level I
CSC100	Introduction to Computer Science (C++)
CSC100AA	Introduction to Computer Science (C++)
CSC100AB	Introduction to Computer Science (C++)
CSC110	Introduction to Computer Science (Java)
CSC110AA	Introduction to Computer Science (Java)
CSC110AB	Introduction to Computer Science (Java)

Select one of the following courses not already taken in required courses:

ECE104	EPICS Gold I
or ECE294	Special Topics in Engineering
or ECE294A	Special Topics in Engineering
or ECE294AE	Special Topics in Engineering
or ECE294AC	Special Topics in Engineering
or ECE296W	Cooperative Education
or ECE296W	Cooperative Education
or ECE296W	Cooperative Education
or ECE296W	Cooperative Education

or ECE298A/Special Projects			
or ECE298AE/Special Projects			
or ECE298AC/Special Projects			
ECE105	MATLAB Programming	1	
ECE106	Survey of Nanotechnology	1	
GTC/MIT/OSH106		0-3	
or AIT100	Industrial Safety		
or CON271	Construction Safety		
MAT206	Elements of Statistics	3	
<b>Biomedical Engineering Technician</b>			
BIO160	Introduction to Human Anatomy and Physiology	4	
or BIO201	Human Anatomy and Physiology I		
ABS175	Research Methods in Biology	1	
BIO211AA	Biotechnology Seminar: Biomedical Applications	1	
ECE111	Bioengineering Systems	3	
<b>Civil Engineering Technician</b>			
CET211		0-3	
or CON223	Strength of Materials		
CON241	Surveying	3	
ECE216	Computer-Aided Engineering	2	
ECE216LL	Computer-Aided Engineering Laboratory	1	
OR			
ECE216AA	Computer-Aided Engineering	3	
GLG101	Introduction to Geology I - Physical Lecture	3	
GLG103	Introduction to Geology I - Physical Lab	1	
OR			
GLG101IN	Introduction to Geology I - Physical	4	
<b>Drafting for Engineering Technician</b>			
CAD100	Fundamentals of 2D Autocad	3	
CAD101	Elements of CAD Graphics (AutoCAD)	3	

CAD145	Design Principles for Industry	3	_____
DFT110	Introduction to Drafting	3	_____
DFT126	Building Trades Blueprint Reading	3	_____
ECE216	Computer-Aided Engineering	2	_____
ECE216LL	Computer-Aided Engineering Laboratory	1	_____
OR			
ECE216AA	Computer-Aided Engineering	3	_____

Met by CHM or PHY in Required Courses	_____
<b>Total Credits</b>	<b>61-70</b>

**General Education****Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

*Oral Communication*

COM100	Introduction to Human Communication (Recommend COM225 or COM230)	3	_____
or COM110	Interpersonal Communication		_____
or COM225	Public Speaking		_____
or COM230	Small Group Communication		_____

*Critical Reading*

CRE101	College Critical Reading and Critical Thinking	3	_____
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or equivalent as indicated by assessment

*Mathematics*

MAT187	Precalculus	5	_____
or MAT220	Calculus with Analytic Geometry I		_____
or MAT221	Calculus with Analytic Geometry I		_____

**General Education***Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area

**Social and Behavioral Sciences**

Any approved general education course(s) in the Social and Behavioral Sciences area

Recommend ECN211 or ECN212

*Natural Sciences*