

BS IN ENGINEERING TECHNOLOGY

Requirements for a Bachelor of Science in Engineering Technology

Additional Graduation Requirements (<https://catalog.una.edu/undergraduate/academic-procedures-requirements/graduation-requirements/>)

Code	Title	Hours
General Education Component (https://catalog.una.edu/undergraduate/academic-procedures-requirements/general-education-component/)		
Area I (Written Composition):		6
Area II (Humanities and Fine Arts): ¹		12
COM 201	Fundamentals of Speech	
PHL 205	Ethics	
	or PHL 250 Business Ethics	
3 Hours Fine Arts Elective		
3 Hours Literature		
Area III (Natural Science and Mathematics): ¹		12-15
MA 115	Pre-Calculus Algebra and Trigonometry	
	or MA 112 College Algebra	
	& MA 113 and College Trigonometry	
CH 111 & 111L	General Chemistry and General Chemistry Laboratory	
PH 241	General Physics I	
	or PH 251 Technical Physics I	
Area IV (History, Social and Behavioral Science): ¹		
Any History Sequence		6
Social and Behavioral Science Courses		6
Area V (https://www.una.edu/areav/) ¹		
CS 135	Computer Skills for Problem-Solving	3
CS 155	Computer Science I	3
MA 121	Calculus for Business and Life Sciences I	3
	or MA 125 Calculus I	
MA 122	Calculus for Business and Life Sciences II	3
	or MA 126 Calculus II	
OHS 301	Occupational Safety and Health	3
PH 242	General Physics II ²	4
	or PH 252 Technical Physics II	
	or BI 111 Principles of Biology	
Major Core Requirements in Engineering Technology		
ET 100	Introduction to Engineering and Technology	3
ET 370	Engineering Economics	3
ET 495W	Engineering Tech Capstone	4
MA 345	Applied Statistics I	3
Choose from the following Options:		36-40
Electro-Mechanical Engineering (p. 1)		
Chemical Engineering Technology (p. 1)		
Bio-Engineering Technology (p. 2)		
Minor		

A minor is not required for this major

General Electives	3-10
General Elective Hours to bring total to 120	
Total Hours	120

¹ Substitution of other courses which meet General Education guidelines at discretion of Department Chair.

² Opt. 1 (E-M) requires PH 242 or PH 252; Opt. 2 (Chemical) and Opt. 3 (Bio-Eng) requires BI 111.

Option 1: Electro-Mechanical Engineering Technology

Code	Title	Hours
ET 150	Computer Aided Drafting and Design	4
ET 200	Manufacturing Processes	3
ET 210	Electricity/Electronics Fundamentals and Green Energy	4
ET 220	Digital Electronics	3
ET 300	Materials Science	3
ET 310	Introduction to Solid Modeling	3
ET 320	Statics and Strength of Materials	4
ET 340	Power Transfer Technology	3
ET 350	Robotics and Automated Manufacturing	4
ET 360	Electrical Circuits and Devices	3
Students must complete an additional 3 credit hours in any 100-400 level ET elective course.		3
300-400 Level Elective		3
Total Hours		40

Option 2: Chemical Engineering Technology

Code	Title	Hours
CH 112	General Chemistry	3
CH 112L	General Chemistry Laboratory	1
CH 311	Organic Chemistry	4
CH 311L	Organic Chemistry Laboratory	1
CH 341	Applied Physical Chemistry	3
CH 341L	Applied Physical Chemistry Laboratory	1
ET 300	Materials Science	3
ET 330	Thermodynamics	3
ET 301	Mass and Energy Balance	3
ET 401	Fluid Flow and Heat Transfer	4
ET 403	Chemical Reactors and Separators	5
ET 411	Process Modeling and Simulations	2
Students must complete an additional 3 credit hours in any 100-400 level ET elective course		3
Total Hours		36

Option 3: Bio-Engineering Technology

Code	Title	Hours
BI 112	Principles of Biology	4
BI 306	Genetics	4
BI 307	Microbiology	4
BI 406	Microbial Ecology and Evolution	4
CH 112	General Chemistry	3
CH 112L	General Chemistry Laboratory	1
ET 202	Introduction to Bio-Engineering and Computational Tools	2
ET 301	Mass and Energy Balance	3
ET 302	Bioprocess Engineering, Manufacturing, and Environmental Technology	5
ET 304	Bioreactor Design	3
ET 415	Molecular Biology for Engineers	4
Students must complete an additional 3 credit hours in any 100-400 level ET elective course.		3
Total Hours		40