

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is only one strategy. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Electives, and university requirements (see pg.2) are based on Catalog Year.

Course Subject and Title	Cr.	Min. Grade	*GE, UU or UM	**Sem. Offered	Prerequisite	Co-Requisite
Semester One (Pre-requisite)						
GE Objective 1: ENGL 1101/P Writing and Rhetoric I	3	D-	GE	F, S, Su	Appropriate placement score	
GE Objective 2: COMM 1101 Fundamentals of Oral Communication (Recommended)	3	D-	GE	F, S		
ESET 1100: Engineering Technology Orientation	1	C-		F, S, D		
ESET 1100L: Introduction to an Industrial Environment Laboratory	1	C-		F, S, D	Minimum score of ALEKS 30 or equivalent	
ESET 1140: Applied Technical Intermediate Algebra OR MATH 1147: Precalculus	5	C-		F, S, D F, S	Minimum score of ALEKS 30 or equivalent Appropriate placement score	
ESET 1152: Nuclear Careers and Information	1	C-		F, S		
ESET 1153: Radiological Control Fundamentals	3	C-		F, D		
Total	17					
Semester Two						
GE Objective 1: ENGL 1102 Writing and Rhetoric II	3	D-	GE	F, S, Su	ENGL 1101/P with a C- or better, or equivalent	
GE Objective 3: MATH 1143 Precalculus I: Algebra OR MATH 1147 Precalculus OR MATH 1153 Statistical Reasoning OR MATH 1160 Survey of Calculus OR MATH 1170 Calculus I OR MGT 2216 Business Statistics	3-5	D-	GE		Appropriate placement score	
ESET 1121: Basic Electricity and Electronics	4	C-		F, S		ESET 1121L
ESET 1121L: Basic Electricity and Electronics Laboratory	3	C-		F, S		ESET 1121
ESET 1130: Initial Operator Training and Student Operations	4	C-			MATH 1143 or equivalent	
Total	17-19					
Semester Three						
GE Objective 5: CHEM 1101 Introduction to Chemistry OR CHEM 1111/L General Chemistry I and Lab	3-5	D-	GE	F, S	MATH 1108 or equivalent MATH 1143 or 1147 or equivalent	
ESET 1122: Electrical Systems and Motor Control Theory	3	C-		F, S, D	ESET 1121/L or instructor approval	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Theory Laboratory	1	C-		F, S, D	ESET 1121/L or instructor approval	ESET 1122
ESET 2220: Thermal Cycles and Heat Transfer (Recommended) OR ESET 1117: Introduction to Industrial Thermal Systems AND ESET 1117L: Introduction to Industrial Thermal Systems Lab	2-3	C-		F, D		
ESET 2239: Pumps, Valves, and Fluid Flow	5	C-		F, D	ESET 1127/L, 1151/L, or 1130	ESET 2239L
ESET 2239L: Pumps, Valves, and Fluid Flow Laboratory	4	C-		F, D	ESET 1127/L, 1151/L, or 1130	ESET 2239
Total	18-21					
Semester Four						
GE Objective 4: TGE 1257 Applied Ethics in Technology	3	D-	GE	D		
GE Objective 5: PHYS 1101 Elements of Physics	3	D-	GE	F, S		MATH 1108 or equivalent, PHYS 1101L
GE Objective 5: PHYS 1101L Elements of Physics Laboratory	1	D-	GE	F, S	MATH 1108 or equivalent, PHYS 1101	MATH 1108 or equivalent, PHYS 1101
GE Objective 6: Any	3	D-	GE			
ESET 1152: Nuclear Careers and Information	1	C-		F, S		
ESET 2221: Nuclear Steam Supply Systems	2	C-		S, D	ESET 1102, 1122, 2220, or instructor approval	
ESET 2249: Reactor Plant Materials	3	C-		S, D	CHEM 1101 or 1111, ESET 1130 or 1151, 2239, or instructor approval	
ESET 2260: Nuclear Instrumentation	2	C-		S, D	ESET 1130	
Total	18					

Course Subject and Title	Cr.	Min. Grade	*GE, UU or UM	**Sem. Offered	Prerequisite	Co-Requisite
Semester Five						
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or instructor approval	
ESET 2248: Power Plant Documentation and Procedures	2	C-			ESET 1130 or 1151, AND 1100L, or instructor approval	
ESET 2251: Reactor Theory Safety and Design	4	C-		F, D	ESET 1130, 2221, 2239, 2248, 2249, 2261, or instructor approval	
ESET 2279: Conduct of Operations	4	C-		F, S, D	ESET 1151/L or 1130 or instructor approval	
ESET 2280: Capstone and Case Studies in Nuclear Engineering Technology	2	C-		F, S, D	ESET 1151/L or 1130, 1153, 2220, 2249, or instructor approval	ESET 2248, 2279
Total	14					
*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major **See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)						

2026-2027 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	15 cr. min
MAJOR REQUIREMENTS	59-60	1. Written English ENGL 1101	3
ESET 1100: Engineering Technology Orientation	1	ENGL 1102	3
ESET 1100L: Introduction to an Industrial Environment Laboratory	1	2. Spoken English Any	3
		3. Mathematics MATH 1143 or 1147 or 1153 or 1160 or 1170 or MGT 2216	3-5
ESET 1117: Introduction to Industrial Thermal Systems AND ESET 1117L: Introduction to Industrial Thermal Systems Lab OR ESET 2220: Thermal Cycles and Heat Transfer (Recommended)	2-3	4. Humanities, Fine Arts, Foreign Lang.	
		TGE 1257: Applied Ethics in Technology	3
ESET 1121: Basic Electricity and Electronics	4	5. Natural Sciences	
ESET 1121L: Basic Electricity and Electronics Laboratory	3	CHEM 1101 or CHEM 1111/L	3-5
ESET 1122: Electrical Systems and Motor Control Theory	3	PHYS 1101: Elements of Physics	3
ESET 1122L: Electrical Systems and Motor Control Theory Laboratory	1	PHYS 1101L: Elements of Physics Laboratory	1
ESET 1130: Initial Operator Training and Student Operations	4	6. Behavioral and Social Science	
ESET 1140: Applied Technical Intermediate Algebra OR MATH 1147: Precalculus	5	Any	3
ESET 1152: Nuclear Careers and Information (Twice. 1 credit each)	2	One Course from EITHER Objective 7 OR 8	
ESET 1153: Radiological Control Fundamentals	3	7. Critical Thinking	
ESET 2221: Nuclear Steam Supply Systems	2	8. Information Literacy	
ESET 2239: Pumps, Valves, and Fluid Flow	5	9. Cultural Diversity	
ESET 2239L: Pumps, Valves, and Fluid Flow Laboratory	4		
ESET 2242: Practical Process Measurements and Control	2	General Education Elective to reach 36 cr. min.	
ESET 2248: Power Plant Documentation Procedures	2	Total GE	25-29
ESET 2249: Reactor Plant Materials	3	Undergraduate Catalog and GE Objectives by Catalog Year	
ESET 2251: Reactor Theory Safety and Design	4		
ESET 2260: Nuclear Instrumentation	2		
ESET 2279: Conduct of Operations	4		
ESET 2280: Capstone and Case Studies in Nuclear Engineering Technology	2	MAP Credit Summary	CR
		Major	59-60
ENGL 1101: Writing and Rhetoric I (counted in GE Obj. 1)		General Education	25-29
ENGL 1102: Writing and Rhetoric II (counted in GE Obj. 1)		Upper Division Free Electives to reach 36 credits	0
MATH 1143: Precalculus I: Algebra OR MATH 1147: Precalculus OR MATH 1153: Statistical Reasoning OR MATH 1160: Survey of Calculus OR MATH 1170: Calculus I OR MGT 2216: Business Statistics (counted in GE Obj. 3)		Free Electives to reach 120 credits	0
TGE 1257: Applied Ethics in Technology (counted in GE Obj. 4)		TOTAL	84-89
CHEM 1101: Introduction to Chemistry OR CHEM 1111: General Chemistry I AND CHEM 1111L: General Chemistry I Lab (counted in GE Obj. 5)		Graduation Requirement Minimum Credit Checklist	Confirmed
PHYS 1101: Elements of Physics (counted in GE Obj. 5)		Minimum 36 cr. General Education Objectives (15 cr. AAS)	X
PHYS 1101: Elements of Physics Lab (counted in GE Obj. 5)		Minimum 15 cr. Upper Division in Major (0 cr. Associate)	X
		Minimum 36 cr. Upper Division Overall (0 cr. Associate)	X
		Minimum of 120 cr. Total (60 cr. Associate)	X
Advising Notes		MAP Completion Status (for internal use only)	
		Date	
		CAA or COT:	GR 06/17/2026
		Complete College American Momentum Year	
		Math and English course in first year-Specific GE MATH course identified	
		9 credits in the Major area in first year	
		15 credits each semester (or 30 in academic year)	
		Milestone courses	