

Catalog Year 2023-2024

AAS, Energy Systems Nuclear Operations Technology, Licensed Operator Track ☐ UCC proposal

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						
GE Objective 1: ENGL 1101 Writing and Rhetoric I	3	C-	GE	F,S,Su		
GE Objective 2: COMM 1101 Fundamentals of Oral Comm	3	C-	GE	F, S		
ESET 1100: Engineering Technology Orientation	1	C-		F, S, D		
ESET 1100L: Intro to an industrial Environment Lab	1	C-		F, S, D		
ESET 1140: Applied Technical Intermediate Algebra	3-5	C-		F, S, D	C- in MATH 0025, a Math ACT score of 18	
(Recommended); or				., 0, 5	or higher, an SAT score of 460 or higher,	
MATH 1147: College Algebra and Trigonometry					an ALEKS score of 30 or higher	
ESET 1152: Nuclear Careers and Information	1	C-		F, S	2 credits required for graduation (take 2	
	_			.,,	times, 1 credit each 1 st and 4 th Semester)	
ESET 1153: Radiological Control Fundamentals	3	C-		F, D		
Total	15-17			1,5		
Semester Two	13-17					
GE Objective 1: ENGL 1102: Writing and Rhetoric II	3	C-	GE	F,S,Su	ENGL 1101 or ENGL 1101P	
GE Objective 3: MATH 1153 (Recommended) or 1160 or	3-4	C-	GE		ENGLISSIOS ENGLISSIF	
1170 (Recommended) *See Advisor*	3-4	C-	GE	F,S,Su		
,	4	_		г.		FCFT 11211
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	4	C-		S, D	MATH 1143 or current ALEKS score of 60	
Operations						
Total	17-18					
Semester Three		1	ı	ı		T
GE Objective 5: CHEM 1101 or CHEM 1111/L	3-5	C-	GE	F,S,Su		
(Recommended)						
ESET 1122: Electrical Systems and Motor Control	3	C-		F, S, D	ESET 1121/L or permission	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control	1	C-		F, S, D	ESET 0121/L or permission	ESET 1122
Laboratory						
ESET 2220: Thermal Cycles and Heat Transfer	2	C-		F, D		
ESET 2239: Pumps, Valves, and Fluid Flow	5	C-		F, D	ESET 1127/L or ESET 1130 or ESET 1151/L	ESET 2239/L
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 1127/L or ESET 1130 or ESET 1151/L	ESET 2239
Total	18-20					
Semester Four						
GE Objective 4: TGE 1257 (Recommended), PHIL 1101,	3	C-	GE	F, S, D		
or PHIL 1103						
GE Objective 5: PHYS 1101/1101L	4	C-	GE	F, S		
GE Objective 6: TGE 1150 (Recommended)	3	C-	GE	F,S,Su		
ESET 1152: Nuclear Careers and Information	1	C-		F, S, D	2 credits required for graduation (take 2	
				, -,	times, 1 credit each 1st and 4th Semester)	
ESET 2221: Nuclear Steam Supply Systems	2	C-		S, D	ESET 1102 or 1122; ESET 2220; or	
2011 2221 Hadical Steam Supply Systems	_			0, 5	permission	
ESET 2249: Reactor Plant Materials	3	C-		S, D	ESET 1151 or 1130; ESET 2239; CHEM	
2021 22 101 11000001 1 10110 11100011010				0, 5	1101 or CHEM 1111/L; or permission	
ESET 2260: Nuclear Instrumentation	2	C-		S, D	ESET 1130	
	18			3, 5	2521 1130	
Total	10					
Total Somester Five					ESET 1122 or permission	
Semester Five	2	I 6				
Semester Five ESET 2242: Practical Process Measurements and	2	C-		F, D	LSET 1122 OF PETTHISSION	
Semester Five ESET 2242: Practical Process Measurements and Control				-	·	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures	2	C-		F, D	ESET 1100L; and ESET 1151 or ESET 1130;	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures	2	C-		F, D	ESET 1100L; and ESET 1151 or ESET 1130; or permission	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures				-	ESET 1100L; and ESET 1151 or ESET 1130; or permission ESET 1130, 2221, 2239, 2248, 2249, 2261,	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures ESET 2251: Reactor Theory Safety and Design	2	C-		F, D	ESET 1100L; and ESET 1151 or ESET 1130; or permission ESET 1130, 2221, 2239, 2248, 2249, 2261, or permission	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures ESET 2251: Reactor Theory Safety and Design ESET 2279: Conduct of Operations	2 4	C- C-		F, D F, D	ESET 1100L; and ESET 1151 or ESET 1130; or permission ESET 1130, 2221, 2239, 2248, 2249, 2261, or permission ESET 1151/L or ESET 1130 or permission	
Semester Five ESET 2242: Practical Process Measurements and Control ESET 2248: Power Plant Documentation and Procedures	2	C-		F, D	ESET 1100L; and ESET 1151 or ESET 1130; or permission ESET 1130, 2221, 2239, 2248, 2249, 2261, or permission	ESET 2248, ESET 2279

^{*}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.)

AAS, Nuclear Operations Technology- Licensed Op	rerator	Hack		Page 2	
2023-2024 Major Requirements		GENERAL EDUCATION OBJECTIVES			
2025-2024 iviajor Requirements		Satisfy Objectives 1,2,3,4	Min		
MAJOR REQUIREMENTS	59	1. Written English (6 cr. min) ENGL 1101	3	
ESET 1100: Engineering Technology Orientation	1		ENGL 1102	3	
ESET 1100L: Introduction to an Industrial Environment Lab	1	2. Spoken English (3 cr. mir		3	
ESET 1121: Basic Electricity and Electronics	4	3. Mathematics (3 cr. min) ESET 1140 (recommended) or MATH 1147	3-4	
ESET 1121L: Basic Electricity and Electronics Lab	3	4. Humanities, Fine Arts, For	eign Lang. (1 courses; 3 cr. min)		
ESET 1122: Electrical Systems and Motor Control Theory	3	TGE 1257, PHIL 1101, or PHI	L 1103	3	
ESET 1122L: Electrical Systems and Motor Control Theory Laboratory	1				
ESET 1130: Initial Operator Training and Student Operations	4	5. Natural Sciences (2 le	ctures-different course prefixes, 1 lab; 7	r. min)	
ESET 1140: Applied Technical Intermediate Algebra	5	PHYS 1101/L		4	
ESET 1152: Nuclear Careers and Information	2	CHEM 1101 or CHEM 1111/I	_	3-5	
ESET 1153: Radiological Control Fundamentals	3				
ESET 2220: Thermal Cycles and Heat Transfer	2	6. Behavioral and Social Scie	nce (1 course; 3 cr. min)		
ESET 2221: Nuclear Steam Supply Systems	2	TGE 1150: (Recommended)		3	
ESET 2239: Pumps, Valves, and Fluid Flow	5				
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	One Course from EITHER Ob	jective 7 OR 8		
ESET 2242: Practical Process Measurement and Control	2	7. Critical Thinking			
ESET 2248: Power Plant Documentation and Procedures	2	8. Information Literacy			
ESET 2249: Reactor Plant Materials	3	9. Cultural Diversity			
ESET 2251: Reactor Theory Safety and Design	4	,			
ESET 2260: Nuclear Instrumentation	2	General Education Elective t	o reach 36 cr. min. (if n	ecessary)	
ESET 2279: Conduct of Operations	4		.		
ESET 2280: Capstone and Case Studies in Nuclear Engineering Tech	2		Total GE	25-28	
		Undergraduate Catalog and GE Objectives by Catalog Year			
		http://coursecat.isu.edu/undergraduate/programs/			
	\bot				
	4	MAP Credit Summary	CR		
		Major		59 25-28	
		General Education			
		Upper Division Free Elect	0		
		Free Electives to reach 12	0		
		TOTAL			
		-	. William Credit Checkinst	Confirmed	
			Minimum 36 cr. General Education Objectives (15 cr. AAS)		
		Minimum 15 cr. Upper Divis	ion in Major (0 cr. Associate)		
		Minimum 36 cr. Upper Divis			
	+	Minimum of 120 cr. Total (6		X	
	+	Institution 220 on rotal (co arry accordance)			
Advising Notes		MAP Completion Status (for internal use only)			
		p 23333300 (Date		
		CAA or COT:	DI 06/01/2022		
		CAA UI CUT:	PJ 06/01/2023		
		Complete College American Momentum Year			
		Math and English course in first year-Specific GE MATH course			
				e identified	
		9 credits in the Major are	ea in first year	e identined	
			ea in first year	e identified	

Form Revised 9.10.2019