

A.S. in Engineering and Phys Sciences Degree Plan and Proposed Course Sequence

Degree Plan

General Education Core		Credits	Pre/Co Requisites	
Written Communication	EN101: Rhetoric and Composition	3	Placement or EN100	
Research Writing	EN102: Literature and Composition	3	EN101	
Domestic Engagement	Choose One: PS101: American Government CJ104: Intro to Constitutional Law	3		
	Choose One: PS102: International Relations SE101: Introduction to National Security SE110: Global Conflict SE220: Terrorism and Counter-Terrorism	3		
Leadership	ECP - MS301: Adaptive Team Leadership ROTC - MS101: Intro to the Army and MS102: Introduction to the Profession of Arms	4		
Quantitative Reasoning	MA104: Calculus I	4	Placement or MA103	
Scientific Application	CH103: Principles of Chemistry I	4	MA101	
Cultures	Choose One: EN207: Creative Writing FA102: Drawing Fundamentals FA105: Art History I CM120: Public Speaking SO101: Intro to Sociology SP101: Introductory Spanish I FR101: Introductory French I AR101: Introductory Arabic I	3		
	Military History	HI203: American Military History	3	
	Program Courses			
	Program Core	MA201: Calculus II	4	MA104
	Program Core	PH201: Physics I	4	MA104
	Program Core	PH202: Physics II	4	PH201
Program Core	ER101: Intro to Engineering	3		
Program Core	ER105: Engineering Graphics	3		
Program Core	CH104: Principles of Chemistry II	4	CH103	
Program Core	CS120: Intro to Programming I	3		
Program Elective	Choose One: MA202: Calculus III ER201: Statics MA103: Precalculus can be substituted if necessary as a prerequisite for MA201: Calculus.	3	MA103: MA101 MA202: MA201 ER201: PH201	
	ECP - MS302: Applied Team Leadership ROTC - MS201: Foundations of Leadership and MS202: Foundations of Tactical Leadership	3		
Elective	ECP - MS401: Developing Adaptive Leaders ROTC - Free Elective	3		
Elective	ECP - MS402: Leadership in a Complex World ROTC - Free Elective	3		
Total Credits		67		

FALL Start 4-Semester Sequence

ECP Course Sequence	Cr	ROTC Course Sequence	Cr
Semester I			
EN101: Rhetoric and Composition	3	EN101: Rhetoric and Composition	3
CH103: Principles of Chemistry I	4	CH103: Principles of Chemistry I	4
Civic Engagement Elective (Precalculus if needed)	3	Civic Engagement Elective (Precalculus if needed)	3
ER101: Intro to Engineering	3	ER101: Intro to Engineering	3
MS301: Adaptive Team Leadership	4	MS101: Introduction to the Army	2
		Free Elective	3
Total Credits	17		18
Semester II			
EN102: Composition and Literature	3	EN102: Composition and Literature	3
MA104: Calculus I	4	MA104: Calculus I	4
CH104: Principles of Chemistry II	4	CH104: Principles of Chemistry II	4
CS120: Intro to Programming I	3	CS120: Intro to Programming I	3
MS302: Applied Team Leadership	4	MS102: Intro to Profession of Arms	2
Total Credits	18		16
Semester III			
MA201: Calculus II	4	MA201: Calculus II	4
PH201: Physics I	4	PH201: Physics I	4
ER105: Engineering Graphics	4	ER105: Engineering Graphics	4
HI203: American Military History	3	HI203: American Military History	3
MS401: Developing Adaptive Leaders	3	MS201: Foundations of Leadership	2
Total Credits	18		17
Semester IV			
PH202: Physics II	4	PH202: Physics II	3
Cultures Elective	3	Cultures Elective	3
Global Engagement Elective	3	Global Engagement Elective	3
MA202: Calculus III or ER201: Statics	4	MA202: Calculus III or ER201: Statics	4
Civic Engagement Elective if needed	3	Free Elective (or Civic Engagement Elective)	3
MS402: Leadership in a Complex World	4	MS202: Foundations of Tactical Leadership	2
Total Credits	21		18

SPRING Start 4-Semester Sequence

ROTC Course Sequence	Cr
Semester I	
EN101: Rhetoric and Composition	3
MA104: Calculus I	4
Civic Engagement Elective	3
CS110: Intro to Computer Info Systems	3
CS120: Intro to Programming I	3
MS101: Introduction to the Army	2
Total Credits	18
Semester II	
EN102: Composition and Literature	3
PH201: Physics I	4
CH103: Principles of Chemistry I	4
MA201: Calculus II	4
MS102: Intro to Profession of Arms	2
Total Credits	17
Semester III	
PH202: Physics II	4
CH104: Principles of Chemistry II	4
CS200: Intro to Programming II	4
CS230: Data Structures	3
CH104: Principles of Chemistry II, CJ106: Digital Forensics, or CS220: Data Management and Security	3
MS201: Foundations of Leadership	2
Total Credits	20
Semester IV	
PH202: Physics II	3
HI203: American Military History	3
Global Engagement Elective	3
Cultures Elective	4
Free Elective	3
MS202: Foundations of Tactical Leadership	2
Total Credits	18