

January 24, 2012

Class of

Required SMA/H/SMP/H/SMO/SQE

2013

2014

2015

F14-15

S13-14

F13-14

S12-13

F12-13

S11-12

		2013	2014	2015	F14-15	S13-14	F13-14	S12-13	F12-13	S11-12
SA305	Linear Programming	Pa	ap	ap		x		x		x
SA401	Linear Models and Optimization	Pa								
SA402	Dynamic & Stochastic Models	PQa	Qap	Qap	x		x		x	x
SA405	Advanced Math Programming		Qap	Qap	x		x		x	
SA410	Applications of Search and Detection Theory	Pa	ap	ap		x		x		
SA421	Simulation Modeling	PQa	Qap	Qap	x		x		x	x
SM233	Introduction to Applied Mathematics					x		x		x
SM261	Matrix Theory				x	x	x	x	x	x
SM279	Multivariable Calculus	ap	O-m,ap	O-m,ap		x		x		x
SM291	Fundamentals of Mathematics	Q	O-m,Q	O-m,Q		x		x		x
SM315	Intro to Partial Diff Eqns	Pa	a	a	x		x		x	
SM331	Advanced Calculus I	Q	Q	Q						
SM331H	Real Analysis		O-b	O-b	x		x		x	
SM332H	Real Analysis II					x		x		x
SM333	Sequences, Series & Functions		O-b,Q	O-b,Q	x		x		x	
SM339	Applied Statistics I	a	Pa	Pa		x		x		x
SM361	Intermediate Linear Algebra		O-b,Q	O-b,Q	x		x		x	
SM362	Modern Algebra	p	p	p	x		x		x	
SM364	Intro To Scientific Computing	a	OQa	OQa		x		x		
SM365	Intro Scientific Computing	Qa	OQa	OQa						
SM411	Intro to Complex Variables	AP	A	A		x		x		x

- A Counts as a track elective for SMA
- P Counts as a track elective for SMP
- O Counts as an SMO track elective
- Q Counts as an SQE math elective
- a Counts as a major/breadth elective for SMA
- p Counts as a major/breadth elective for SMP
- O-b Counts as an SMO breadth elective
- O-m Counts as an SMO math elective

		Class of								
Electives SMA/H/SMP/H/SMO/SQE		2013	2014	2015	F14-15	S13-14	F13-14	S12-13	F12-13	S11-12
SA367	Intro to Mathematical Modeling	PQa	OQap	OQap		x		x		
SA403	Graph and Network Algorithms		OQap	OQap		x		x		
SA430	Logistics	PQa	OQap	OQap	x		x			
SA442	Applied Statistics II	PQa	Qa	Qa						
SM259	Mathematical Logic	ap	ap	ap			x			
SM311	Engineering Mathematics I	a	a	a						
SM311P	Mathematical Methods for Physics	Pa	a	a						
SM312	Engineering Mathematics II	ap	ap	ap						
SM321	Topics in Appl Mathematics*	Pa	Pa	Pa	x	x	x	x		
SM334	Advanced Calculus	Ap	AQp	AQp		x		x		
SM342	Discrete Structures	APQ	O-b,APQ	O-b,APQ		x		x		x
SM350	Topics in Pure & Applied Math*	ap	ap	ap						
SM415	Math Model Ocean & Atmos	Pa	Pa	Pa		x		x		x
SM415H	Math Model Ocean & Atmos	Pa	Pa	Pa		x		x		x
SM421	Topics in Applied Mathematics II*	PQa	PQa	PQa	x	x	x	x	x	
SM425	Advanced Numerical Analysis	Pa	Pa	Pa	x		x		x	
SM426	Numerical Methods For Diff Eq	Pa	Pa	Pa		x		x		
SM437	Experimental Design		OQa	OQa		x		x		
SM439	Topics in Statistics*	PQa	OQa	OQa	x		x		x	
SM444	Discrete Structures II	Ap	Ap	Ap			x			
SM450	Topics in Pure & Applied Math 2*	AP	AP	AP	x	x	x	x	x	
SM461	Linear Algebra	Ap	Ap	Ap		x		x		
SM462	Algebraic Structures	Ap	Ap	Ap		x				x
SM463	Topics in Analyt/Discr Math*	Ap	Ap	Ap	x	x	x	x		
SM464	Topology	Ap	Ap	Ap	x		x		x	
SM465	Advanced Differential Equations		P	P			x			x
SM468	Crypto, Codes & Info Security	AP	Ap	Ap		x		x		x

A Counts as a track elective for SMA

P Counts as a track elective for SMP

O Counts as an SMO track elective

Q Counts as an SQE math elective

a Counts as amajor/breadth elective for SMA

p Counts as major/breadth elective for SMP

O-b Counts as an SMO breadth elective

O-m Counts as an SMO math elective

* Topics and prerequisites vary

Additional electives available in other departments - see MIDS for complete listing

For further information contact: C. G. Melles cgg@usna.edu

Capstones/Project Courses SMA/H/SMP/H/SMO/SQE		Class of								
		2013	2014	2015	F14-15	S13-14	F13-14	S12-13	F12-13	S11-12
SA412	Projects in Operations Analysis									
SA475	Operations Research Capstone					X*		X*		
SA475E	Research Seminar in Quantitative Economics					X		X*		X
SA496	Honors Project					X*		X*		
SM472	Projects in Mathematics (SMA Capstone)					X*		X*		
SM473	Projects in Math & Applied Math (SMA/SMP Capstone)					X*		X*		X*
SM474	Project in Applied Mathematics (SMP Capstone)					X*		X*		X*
SM495*	Mathematics Research Project - as needed				X*		X*		X*	
SM496	Honors Project					X*		X*		X*
SM5XY*	Trident Courses - as needed									X*

* Varies from year to year

Reading Courses SMA/H/SMP/H/SMO/SQE		Class of								
		2013	2014	2015	F14-15	S13-14	F13-14	S12-13	F12-13	S11-12
SA485	Advanced Topics in Operations Analysis*	ap	ap	ap						
SA486	Advanced Topics in Operations Analysis*	ap	ap	ap						X
SM485	Advanced Topics in Math*	Qap	Qap	Qap						
SM485H	SMAH/SMPH Reading Course*				X		X		X	
SM486	Advanced Topics in Math*	Qap	Qap	Qap						

*Topics vary, permission of chair required

Other

SM481	Math Problem Solving Lab				X		X		X	
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The following service courses are not included in this plan

SA302, SM219, SM222, SM230, SM239,
SM242, SM313, SM316, XM000

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