NIA Graduate Program: Spring 2021			
FULL COURSE LIST			
HAMPTON UNIVERSITY			
TBD			
* Courses taught on HU campus			
+ Course instructor on-site at NIA			
GEORGIA TECH			
Aerospace Engineering (MS and PhD)			
AE 6012 A	Turbulent Flows	Yeung	TR 2:00pm-3:15pm
AE 6015 A	Advanced Aerodynamics	Sankar	MWF 8:25am-9:15am
AE 6042 A	Computational Fluid Dynamics	Oefelein	TR 8:25am-10:20am
AE 6070 A	Rotary Wing Aerodynamics	Sankar	TR 2:00pm-3:15pm
AE 6115 A	Fundamentals of Aero Structural Analysis	Di Leo	MWF 11:00am-11:50am
AE 6210 A	Advanced Dynamics I	Patil	TR 9:30am-10:45am
AE 6220 A	Rotorcraft Structural Dynamics and Aeroelasticity	Prasad/Smith	TR 2:00pm-3:15pm
AE 6310 A	Optimization for the Design of Engineered Systems	Kennedy	TR 3:30pm-4:45pm
AE 6344 A	Aircraft Design II	Mavris	MW 2:00pm-2:50pm
AE 6344 A01	Aircraft Design II	Mavris	MW 3:30pm-6:15pm
AE 6361 A	Air Breathing Propulsion System Design I	Tai	MWF 9:30am-10:20am
AE 6394 A	System of Systems Engineering Applications	Mavris	TR 2:00pm-2:50pm
AE 6394 A 01	System of Systems Engineering Applications	Mavris	T 3:30pm -6:15pm
AE 6412 A	Turbulent Combustion	Lieuwen	MWF 11:00am-11:50am
AE 6450 A	Rocket Propulsion	Walker	MW 9:30am-10:45am
AE 6520 A	Advanced Flight Dynamics	Prasad	MWF 9:30am-10:20am
AE 6531 A	Robust Control I	Haddad	MWF 9:30am-10:20am
AE 6580 A	Nonlinear Control	Chen	MWF 11:00am-11:50am
AE 6701 Q	Wind Engineering	Sankar	TBA
AE 61761 A	Acoustics II	Sabra	TR 2:00pm-3:15pm
AE 6762 A	Applied Acoustics	Shi	MW 3:30pm-4:45pm
AE 6766 A	Combustion	Seitzman	MW 8:00am-9:15am
AE 8803 NUM	Numerical Analysis and Algorithms	Saleh	MWF 12:30pm-1:20pm
AE 8803 THE	Nonlinear Stochastic Optimal Control	Theodorou	TR 12:30pm-1:45pm
AE 8803 GUN	Satellite Orbit Determination	Gunter	TR 9:30am-10:45am
AE 8803 VAM	Cyber Physical Systems and Distributed Control	Vamvoudakis	MW 3:30pm-4:45pm
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*Synchronous (live) course received or delivered from NIA.			
+ Course instructor on-site at NIA			
NORTH CAROLINA STATE UNIVERSITY		1	T
Mechanical and Aerospace Engineering (MS and PhD)	Advanced Facines in a Theorem demands	0	
MAE 501	Advanced Engineering Thermodynamics	Gould	-
MAE 526	Fundamentals of Product Design	Ferguson	
MAE 535	Design of Electromechanical Systems	Buckner	
MAE 537	Mechanics of Composite Structures	Grace	
MAE 538	Smart Structures and Materials	Bryant	
MAE 543	Fracture Mechanics	Ryu	
MAE 550	Foundations of Fluid Dynamics	Echekki	
MAE 575	Advanced Propulsion Systems	Narayanaswamy	
MAE 586	Project Work in Mechanical Engineering	Peters	Asynchronous streaming media
MAE 589 604	Applied Aerodynamics	Gopalarathnam	
MAE 589 608	Bio-Inspired Surfaces	Kota	
MAE 589 612	Nonlinear Dynamics	Perkins	
MAE 589 613	Mechanics of Solid Polymers	O'Connor	
MAE 589 614	Spacecraft Environment and Interactions	Berg	
MAE 589 615	Vigorous Force Analysis	Tu	
MAE 708	Advanced Connective Heat Transfer	Kuznetsov	
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International Computer Engineering (courses only)	MAE 730	Modern Plasticity	Huang	
Electrical and Computer Engineering (courses only)		Finite Element Analysis II	Zikry	
ECE 506		Structural Health Monitoring	Yuan	
ECE 515 Digital Communications Displace Control Engineering Chow Systems Control Engineering Chow ECE 524 Radio System Design Clear Redio System Design Ricketts Redictions and System Design Clear Redio System Design Ricketts Redictions Redictions Research Redictions	, , ,			
ECE 516			Ü	
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ECE 535			Chow	1
ECE 542	ECE 524	Radio System Design	Ricketts	
ECE 544	ECE 535	Design of Electromechanical Systems	Buckner	
ECE 546 VLSI Design Systems Davis	ECE 542	Neural Networks	Lobaton	
ECE 551	ECE 544	Design of Electronic Packaging and Interconnects	Evans	
ECE 552	ECE 546	VLSI Design Systems	Davis	
ECE 556	ECE 551	Smart Electric Power Distribution Systems	Lubkeman	
ECE 566	ECE 552	Renewable Electric Energy Systems	Baran	
ECE 574	ECE 561	Embedded System Design	Dean	
ECR 574	ECE 566	Compiler Optimization and Scheduling	Tuck	
Introduction to Wireless Networking			Enck	
Electric Power System Potaction			_	
Electing Poer Engineering Practicum White ECE 589				
ECE 589				
ECE 600				
ECE 712				
ECE 719				
ECE 721				
ECE 734				
ECE 745				
ECE 751				
ECE 753				
ECE 763				
ECE 785			-	
Industrial & Systems Engineering (courses only)			-	
Introduction to Operations Research Kay		Advanced Embedded Systems	Dean	
SE 510		Inter-denting to One and the December	1/	
SE 537				
SE 540				
SE 552 Design and Control of Production and Service Systems King ISE 553 Modeling and Analysis of Supply Chains Uzsoy ISE 716 Automated Systems Engineering Lee ISE 718 Automated Systems Engineering Dong ISE 740 Engineering Psychology of Human-Computer Interaction Nam ISE 789 601 Smart Manufacturing Starly Materials Sciences and Engineering (courses only) MSE 500 Modem Concepts in Materials Science Kasichainula MSE 555 Polymer Technology and Engineering Balik MSE 556 Composite Materials Composite Materials MSE 565 Introduction to Nanomaterials Tracy MSE 580 Materials Forensics and Degradation Koch MSE 589 Solid State Solar and Themal Energy Harvesting Vashaee MSE 702 Defects in Solids Narayan MSE 757 Radiation Effects on Materials Kaoumi MSE 791-601 Biomaterials Yingling MSE 791-601 Materials Yingling MSE 791-601 Materials Yingling Asynchronous streaming MSE 791-601 Materials Yingling Asynchronous streaming MSE 791-601 Materials Yingling Wingling Asynchronous streaming Materials Wingling Materials Wingling MSE 791-601 Materials Wingling Wingling Wingling MSE 791-601 Materials Wingling Wingling Wingling Materials Wingling Wingling Materials Wingling Wingling Wingling Materials Wingling Wingling Materials Wingling Winglin				
ISE 553				
ISE 716 Automated Systems Engineering ISE 718 Micro/Nano-Scale Fabrication and Manufacturing Dong ISE 740 Engineering Psychology of Human-Computer Interaction SE 789 601 Smart Manufacturing Materials Sciences and Engineering (courses only) MSE 500 Modern Concepts in Materials Science MSE 555 Balik Polymer Technology and Engineering MSE 565 Composite Materials MSE 565 Introduction to Nanomaterials MSE 565 Materials Forensics and Degradation MSE 580 Materials Forensics and Degradation MSE 580 Materials Forensics and Degradation MSE 580 Solid State Solar and Thermal Energy Harvesting MSE 702 Defects in Solids MSE 705 Mechanical Behavior of Engineering Materials MSE 705 Mechanical Behavior of Engineering Materials MSE 757 Radiation Effects on Materials MSE 791-601 Biomaterials Vingling			3	Asynchronous streaming media
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*Synchronous (live) course received or delivered from NIA.

X Course instructor on-site at NIA
NORTH CAROLINA A&T UNIVERSITY
Computer Engineering

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TBD			
Electrical Engineering		T	_
TBD			
*Synchronous (live) course received or delivered from NIA.			
OLD DOMINION UNIVERSITY	-		
Web delivery			
Mechanical and Aerospace Engineering (MS and PhD)			
MAE 602	Fluid Dynamics and Aerodynamics	Britcher	TR 2:30pm-3:45pm
MAE 603	Advanced Mechanics of Solids	Elmustafa	MW 2:30pm-3:45pm
MAE 608	Applied Mathematics for Engineers	Wriggers	MW 1:00pm-2:15pm
MAE 620	Heat Transfer 1	Qian	T 10:00am-12:40pm
MAE 734/834	Theory of Vibrations	Xu	TR 9:30am-10:45am
MAE 741/841	Optimal Control Theory	Newman	MW 1:00pm-2:15pm
MAE 751/851	Fatigue and Fracture	Kravchenko	MW 11:00am-12:15pm
MAE 772/872	Response Surface Methodology	Landman	TR 11:00am-12:15pm
MAE 795/895	CFD II	Baysal	F 10:00am-12:40pm
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Chemical Engineering			
CHEM 795/MAE 795*	Exoplanets	Bernath	MW 9:30am-10:45am
*Synchronous (live) course received on student desktop or laptop	ı	1	ı
UNIVERSITY OF MARYLAND			
	ently on UMD's schedule to be offered to NIA students as distance courses on Zoom due to COVI	D-19 situation	
ENAE 602	Spacecraft Attitude Dynamics and Control	Mitchell	TR 5:30pm-6:45pm
ENAE 633	Helicopter Dynamics	Datta	TR 9:30am-10:45am
ENAE 634	Helicopter Design	Nagaraj & Chopra	F 1:00pm-2:50pm & F 3:00-4:50pm (Lab)
ENAE 646	Advanced Dynamics of Aerospace Systems	Paley	TR 11:00am-12:15pm
ENAE 652	Computational Structural Mechanics	Lee	MW 3:00pm-4:15pm
ENAE 654	Mechanics of Composite Structures		MWF 12:00pm-12:50pm
ENAE 656	Aeroelasticity	Haas	F 2:00pm-5:00pm
ENAE 665	Advanced Airbreathing Propulsion	Yu	TR 11:00am-12:15pm
		Cadou	
ENAE 674	Aerodynamics of Compressible Fluids		TR 12:30pm-1:45pm
ENAE 676	Turbulence	Martin	TR 9:30am-10:45am
ENAE 683	High Temperature Gas Dynamics	Laurence	TR 3:30pm-4:45pm
ENAE 685	Computational Fluid Dynamics II	Baeder	TR 11:00am-12:15pm
ENAE 691	Satellite Design	Wildermann	W 6:30pm-9:00pm
ENAE 696	Spacecraft Thermal Design	Silk	TR 6:30pm - 7:45pm
ENAE 697	Space Human Factors and Life Support	Akin	MW 2:00pm-3:15pm
ENAE 741	Interplanetary Navigation and Guidance	Barbee	TR 5:00pm-6:15pm
ENAE 788E	Selected Topics in Aerospace Engineering: Electro-Mechanical System Modeling	Flatau	MW 5:00pm-6:15pm
ENAE 788L	Selected Topics in Aerospace Engineering: Optimal Estimation of Dynamic Systems	Healy	TR 9:30am-10:45am
ENAE 788T	Selected Topics in Aerospace Engineering: Introduction to Power Beaming and Space Solar	TBA	T 7:30pm-10:00pm
ENAE 788V	Selected Topics in Aerospace Engineering: Motion Planning for Autonomous Systems	Otte	TR 2:00pm-3:15pm
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Above are synchronous (live) course received on student's desktop	or laptop		
UNIVERSITY OF VIRGINIA *Courses are listed as TBA as of 11/	16/2021 -UVA currently working of a unified definition of Synchronous and Asynchronous delive	ry.	
**Course is 4 credits, all others are 3 credits			
Applied Mathematics			
APMA 6420	Engineering Mathematics II	Morris	ТВА
APMA 6430	Statistics for Engineers & Scientists	Guadagni	TBA
Chemical Engineering	· · · · · · · · · · · · · · · · · · ·		
CHE 5456	Biproduct & Biprocess Eng	King	ТВА
CHE 5561	Special Topics: Data Science in Chemical Engineering	Lazzara	TBA
CHE 5561	Special Topics: Fundamentals of Process Safety	Unnerstall	TBA
CHE 5562	Special Topics: Tissue Engineering	Caliari	TBA
CHE 6442	Applied Surface Chemistry	Green	TBA
			TBA
CHE 6447 CHE 6476**	Biochemical Engineering Process Design and Economics	Letteri & Prpich	TBA
OHE 0470	Frocess besign and Economics	Anderson	IDA

CHE 6618	Chemical Reaction Engineering	Koenig	ТВА
CHE 6630	Mass Transfer	Geise	TBA
Civil Engineering			
CE 5240	Ground-Water Hydrology and Contaminant Transport	Smith	TBA
CE 5300	Adv Design of Metal Structures	Gomez	TBA
CE 5410	Intro to Transportation Planning	Miller	TBA
CE 5500	Special Topics: Construction Estimating	O'Malley	TBA
CE 5500	Special Topics: stochastic Hydrology	Quinn	TBA
CE 5700	Foundations Engineering	Burden	TBA
CE 6260	Environmental Microbiology and Biological Waste Treatment	Peterson	TBA
CE 6460	Intro to Integrated Transportation Systems Models	Park	TBA
CE 6490	Transportation Data Analysis and Modeling	Fontaine	TBA
CE 6500	Special Topics: Smart Cities and Cyber-Physical Systems (CPS)	Goodall	TBA
CE 6500	Special Topics: Remote Sensing for Environmental Engineers	Lakshmi	TBA
CE 6500	Special Topics: Intro to Bridge Engineering and Design	Gomez	TBA
CE 6500	Special Topics: Dynamical Systems	Ozbulut	TBA
CE 6750	Mechanics of Composite Materials	Pindera	TBA
Electrical and Computer Engineering			
ECE 5150	Microelectronic Integrated Circuit Fabrication	Swami	TBA
ECE 5260	Microwave Engineering I	Weikle	TBA
ECE 5502	Special Topics: Photovoltaics	Gupta	TR 3:30pm-4:45pm
ECE 5502	Special Topics: Hardware-Software Security	Johnson	TBA
ECE 6140	Fundamentals of Nanoelectronics	Ghosh	TBA
ECE 6332	VLSI Design	Stan	TBA
ECE 6434	Dependable Computing Systems	Alemzadeh	TBA
ECE 6435	Computer Architecture and Design	Williams	TBA
ECE 6465	Robots and Humans	Iqbal	TBA
ECE 6501	Special Topics: Optical Quantum Electronics	Yi	TBA
ECE 6501	Special Topics: Optical Communication Devices	Beling	TBA
ECE 6501	Special Topics: Matrix Analysis in Engineering and Science	Tao	TBA
ECE 6502	Special Topics: Hardware for Modern Day Computing	Shukla	TBA
ECE 6502	Special Topics: Graph Mining	Li	TBA
ECE 6502	Special Topics: Electrons and Phonons	Zebarjadi	TBA
ECE 6502	Special Topics: Adv Digital Design Laboratory	Stan	TBA
ECE 6502	Special Topics: Machine learning for Engineers	Zhang	TBA
ECE 6642	Optoelectronic Devices	Campbell	TBA
ECE 6750	Digital Signal Processing	Weller	TBA
ECE 6784	Wireless Communications	Shen	TBA
ECE 6850	Intro to Control Systems	Lin	TBA
Materials Sciences and Engineering			

MSE 6020	Defects and Microstructure in Materials	Agnew	ITBA
MSE 6080	Chemical and Electrochemical Properties	Zangari	TBA
MSE 6130	Transmission Electron Microscopy	Howe	TBA
MSE 6240	Kinetics of Transport and Transformations in Materials	Opila	TBA
MSE 6320	Deformation and Fracture of Structural Materials	Burns	TBA
MSE 6592	Special Topics: Introduction to Materials Informatics	Balachandran	TBA
			II.
MSE 6592	Special Topics: X-ray Scattering Techniques in Materials Science	Sun	TBA
MSE 6592	Special Topics: Electrons and Phonons	Zebarjadi	TBA
MSE 7220	Surface Science	Reinke	TBA
Mechanical and Aerospace Engineering		-	
MAE 6070	Theory of Elasticity	Xu	TBA
MAE 6110	Heat and Mass Transport Phenomena	Hopkins	TBA
MAE 6130	Kinetic Theory and Transport Properties	Chelliah	TBA
MAE 6210	Analytical Dynamics	Staff	TBA
MAE 6250	Multbody Mechanical Systems	Russell	TBA
MAE 6420	Engineering Mathematics II	Morris	TBA
MAE 6430	Statistics for Engineers & Scientists	Guadagni	TBA
MAE 6592	Special Topics: Wind Energy	Loth	TBA
MAE 6592	Special Topics: Robotic Autonomy	Furukawa	TBA
MAE 6592	Special Topics: Informatics for Materials and Mechanics	Balachandran	TBA
MAE 6592	Special Topics: The Business of Engineering	Williams	TBA
MAE 6592	Special Topics: Dynamical Systems	Ozbulut	TBA
MAE 6710	Finite Element Analysis	Panzer	TBA
MAE 6720	Computational Fluid Dynamics I	Dong	TBA
Systems Engineering	Computational Fluid Dynamics I	Dong	IIBA
STS 5500	Special Topics: Race and Engineering	Berne	Ітва
	1 1 0 0		
SYS 5581	Special Topics: Time Series & Forecasting	Small	TBA
SYS 6018	Data Mining	Porter	TBA
SYS 6050	Risk Analysis	Lambert	TBA
SYS 6465	Robots and Humans	Iqbal	TBA
SYS 6581	Special Topics: Bayesian Decision Theory	Krzysztofowicz	TBA
SYS 6582	Special Topics: Fundamental of Item Response Theory	Schmidt	TBA
SYS 6582	Special Topics: CPS: Formal Methods, Safety, and Security	Feng	TBA
SYS 6582	Special Topics: Introduction to Lean Enterprise and Six Sigma	Riggs	TBA
SYS 7005	Stochastic Systems II	Krzysztofowicz	TBA
*Synchronous (live) course received on student desktop or laptop			
VIRGINIA TECH			
All Courses Below are Online with Synchronous Meetings			
Unless Otherwise Noted			
Aerospace and Ocean Engineering (MS and P.D)		•	
AOE 5034 (CRN 10484)	Mechanical & Struct Dynamics	Thangitham	MWF 1:25pm-2:15pm
105 500 (05) (05)			
AOE 5034 (CRN 10485)	Mechanical & Struct Dynamics	Seidel	Asynchronous
AOE 5034 (CRN 10485) AOE 5054 (CRN 10486)	Mechanical & Struct Dynamics Elastic Stability	Seidel Kapania	Asynchronous Asynchronous
AOE 5054 (CRN 10486)	Elastic Stability	Kapania	Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324)	Elastic Stability Elastic Stability	Kapania Kapania	Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124)	Elastic Stability Elastic Stability Structural Optimization	Kapania Kapania Canfield	Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics	Kapania Kapania Canfield Adams	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics	Kapania Kapania Canfield Adams Adams	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory	Kapania Kapania Canfield Adams Adams Schetz	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory	Kapania Kapania Canfield Adams Adams Schetz Schetz	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 21024)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 21024) AOE 5234 (CRN 10495)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5234 (CRN 10495) AOE 5234 (CRN 10495)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 21024) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5314 (CRN 10497)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5444 (CRN 21024) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5314 (CRN 10497) AOE 5314 (CRN 10497)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown	Asynchronous Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5234 (CRN 10497) AOE 5314 (CRN 10497) AOE 5314 (CRN 10498)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval Ship Design	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5234 (CRN 10495) AOE 5234 (CRN 10495) AOE 5314 (CRN 10497) AOE 5314 (CRN 10497) AOE 5316 (CRN 10498) AOE 5316 (CRN 10499)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown Brown Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5114 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5144 (CRN 10495) AOE 5314 (CRN 10495) AOE 5314 (CRN 10496) AOE 5314 (CRN 10497) AOE 5316 (CRN 10498) AOE 5316 (CRN 10500) AOE 5316 (CRN 10500)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design Naval Ship Design	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown Brown Brown Brown Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 10491) AOE 5234 (CRN 10495) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5314 (CRN 10497) AOE 5316 (CRN 10498) AOE 5316 (CRN 10498) AOE 5316 (CRN 10500) AOE 5316 (CRN 10501) AOE 5334 (CRN 10501)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design Naval Ship Design Naval Ship Design Advanced Ship Dynamics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous Asynchronous TR 8:00am-9:15am
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5444 (CRN 21024) AOE 5234 (CRN 10495) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5314 (CRN 10497) AOE 5316 (CRN 10497) AOE 5316 (CRN 10501) AOE 5316 (CRN 10501) AOE 5316 (CRN 10501) AOE 5314 (CRN 10502) AOE 5334 (CRN 10502)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design Naval Ship Design Advanced Ship Dynamics Advanced Ship Dynamics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown Brown Brown Brown Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous Asynchronous
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5144 (CRN 10490) AOE 5144 (CRN 10491) AOE 5444 (CRN 21024) AOE 5234 (CRN 10495) AOE 5234 (CRN 10496) AOE 5314 (CRN 10497) AOE 5316 (CRN 10498) AOE 5316 (CRN 10498) AOE 5316 (CRN 10500) AOE 5316 (CRN 10500) AOE 5316 (CRN 10501) AOE 5334 (CRN 10501)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design Naval Ship Design Naval Ship Design Advanced Ship Dynamics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown	Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous TR 3:30pm-4:45pm Asynchronous Asynchronous Asynchronous TR 8:00am-9:15am
AOE 5054 (CRN 10486) AOE 5054 (CRN 21324) AOE 5064 (CRN 21124) AOE 5114 (CRN 10488) AOE 5114 (CRN 10489) AOE 5114 (CRN 10490) AOE 5144 (CRN 10491) AOE 5144 (CRN 21024) AOE 5234 (CRN 10495) AOE 5234 (CRN 10495) AOE 5234 (CRN 10497) AOE 5316 (CRN 10497) AOE 5316 (CRN 10500) AOE 5314 (CRN 10502) AOE 5334 (CRN 10502)	Elastic Stability Elastic Stability Structural Optimization High Speed Aerodynamics High Speed Aerodynamics Boundary-Layer Theory Boundary-Layer Theory Boundary-Layer Theory Orbital Mechanics Orbital Mechanics Naval & Marine Engr Sys Design Naval & Marine Engr Sys Design Naval Ship Design Naval Ship Design Naval Ship Design Advanced Ship Dynamics Advanced Ship Dynamics	Kapania Kapania Canfield Adams Adams Schetz Schetz Schetz Black Black Brown Brown Brown Brown Brown Brown Brown Brown Brizzolara Brizzolara	Asynchronous Asynchronous Asynchronous Asynchronous TR 11:00am-12:15pm Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous Asynchronous TR 2:00pm-3:15pm Asynchronous TR 3:30pm-4:45pm Asynchronous TR 8:00am-9:15am Asynchronous TR 8:00am-9:15am Asynchronous

AOE 5664 (CRN 21026)	Upper Atmosphere & Ionosphere	England	TR 8:00am-9:15am
AOE 5664 (CRN 21129)	Upper Atmosphere & Ionosphere	England	Asynchronous
AOE 5734 (CRN 21027)	Convex Optimization	Farhood	TR 12:30pm-1:45pm
AOE 5764 (CRN 10506)	Applied Linear Control	Southward	TR 12:30pm-1:45pm
AOE 5764 (CRN 10507)	Applied Linear Control	Southward	TR 12:30pm-1:45pm
AOE 5984 (CRN 20951)	SS: Instability and Transition	Massa	TR 11:00am-12:15pm
AOE 6145 (CRN 21145)	Computational Fluid Dynamics	Roy	Asynchronous
AOE 6174 (CRN 10602)	Computational Plasma Dynamics	Srinivasan	TR 2:00pm-3:15pm
AOE 6174 (CRN 10603)	Computational Plasma Dynamics	Srinivasan	Asynchronous
AOE 6204 (CRN 10604)	Adv. Vehicle Dynamics & Control	Sultan	Asynchronous
AOE 6204 (CRN 21125)	Adv. Vehicle Dynamics & Control	Sultan	Asynchronous
AOE 6254 (CRN 10606)	Turbulence Modeling & Simulation	Roy	Asynchronous
AOE 6434 (CRN 10607)	Comp Fluid Dyn Heat Trans	Tafti	TR 9:30am-10:45am
AOE 6744 (CRN 10610)	Linear Control Theory	Stilwell	TR 3:30pm-4:45pm
AOE 6744 (CRN 10611)	Adaptive Control Systems	Leonessa	TR 11:00am-12:15pm
AOE 6774 (CRN 21030)	Adaptive Control Systems	Leonessa	Asynchronous
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Mechanical Engineering (MS and PhD)			
ME 5034 (CRN 17211)	Bio-Inspired Technology	Mueller	MWF 9:05am-9:55am
ME 5174 (CRN 20765)	Biomech Crash Injury Prevent	Staff	TR 2:00pm-3:15pm
ME 5214 (CRN 20703) ME 5214 (CRN 20520)	Combustion	Staff	
			TR 12:30pm-1:45pm
ME 5314 (CRN 17213)	Conv Heat & Mass Transfer	Pitchumani	MW 10:10am-11:25am
ME 5314 (CRN 17215)	Conv Heat & Mass Transfer	Mahajan	MW 10:10am-11:25am
ME 5314 (CRN 20521)	Conv Heat & Mass Transfer	Pitchumani	MW 10:10am-11:25am
ME 5424 (CRN 20527)	Turbomachinery	Staff	TR 2:00pm-3:15pm
ME 5564 (CRN 17218)	Applied Linear Control	Southward	TR 12:30pm-1:45pm
ME 5564 (CRN 17219)	Applied Linear Control	Southward	TR 12:30pm-1:45pm
ME 5584 (CRN 21328)	Convex Optimization	Farhood	TR 12:30pm-1:45pm
ME 5704 (CRN 17223)	Robotics and Automation	Staff	T 11:00am-1:30pm
ME 5704 (CRN 20530)	Robotics and Automation	Staff	T 11:00am-1:30pm
ME 5714 (CRN 17224)	Digital Signal Processing	Wicks	MWF 10:10am-11:00am
ME 5714 (CRN 17225)	Digital Signal Processing	Wicks	MWF 10:10am-11:00am
ME 5734 (CRN 17226)	Advanced Engineering Acoustics	Fuller	TR 3:30pm-4:45pm
ME 5734 (CRN 17227)	Advanced Engineering Acoustics	Fuller	TR 3:30pm-4:45pm
ME 5736G (CRN 20519)	Advanced Mechatronics	Staff	MWF 9:05am-9:55am
ME 5744 (CRN 17229)	Meth Mech Engineering Analysis	Vick	MWF 10:10am-11:00am
ME 5744 (CRN 20766)	Meth Mech Engineering Analysis	Vick	Asynchronous
ME 5764 (CRN 20749)	Modeling MEMS and NEMS	Paul	TR 11:00am-12:15pm
ME 5794 (CRN 21745)	Optimization Tech in Eng	Acar	TR 11:00am-12:15pm
ME 5984 (NO CRN LISTED)	Vehicle Prop Energy Mdling	Nelson	TR 2:00pm-3:15pm
ME 6104 (CRN 17381)	Adv Topics in Thermodynamics	von Spakovsky	MWF 12:20pm-1:10pm
ME 6104 (CRN 17382)	Adv Topics in Thermodynamics	von Spakovsky	MWF 12:20pm-1:10pm
ME 6434 (CRN 17383)	Comp Fluid Dyn Heat Trans	Tafti	TR 9:30am-10:45am
ME 6434 (CRN 20531)	Comp Fluid Dyn Heat Trans	Tafti	TR 9:30am-10:45am
ME 6544 (CRN 17386)	Linear Control Theory	Stilwell	TR 3:30pm-4:45pm
ME 6574 (CRN 17387)	Adaptive Control Systems	Leonessa	TR 11:00am-12:15pm
ME 6574 (CRN 17387) ME 6574 (CRN 20748)	Adaptive Control Systems Adaptive Control Systems	Leonessa	Asynchronous
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*Synchronous (live) course received or delivered from NIA X Course instructor on-site at NIA.

All VT AOE, ESM, MSE and ME courses are delivered at

[#] Courses are available for graduate credit
XX ONLINE course. Primarily received at desktop.

**Synchronous (live) course delivered at the Peninsula Graduate Center
NIA Headquarters.