NIA Graduate Program: Spring 2023				
FULL COURSE LIST HAMPTON UNIVERSITY				
Atmospheric Science (MS and PhD) APS 646	Atmospheric Chemistry	TBD	TR 9:30am-10:45am	
APS 649	Atmospheric Radiative Transfer	TBD	TR 11:00am-12:15pm	
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GEORGIA TECH Aerospace Engineering (MS and PhD)				
TBD				
NORTH CAROLINA STATE UNIVERSITY		<u> </u>		
Mechanical and Aerospace Engineering (MS and PhD)				
MAE 501 MAE 515	Advanced Engineering Thermodynamics Advanced Automotive Vehicle Dynamics	Gould Tu		
MAE 526	Fundamentals of Product Design	Ferguson		
MAE 535 MAE 537	Design of Electromechanical Systems  Mechanics of Composite Structures	Buckner Lee	Asynchronous streaming media	
MAE 538	Smart Structures and Materials	Bryant		
MAE 543	Fracture Mechanics	Ryu		
MAE 555 MAE 577	Applications of Acoustic and Elastic Wave Propagation  Multiscale Two-Phase Flow Simulations	Muller Bolotnov		
MAE 586	Project Work in Mechanical Engineering	Huang		
MAE 589 MAE 589	Special Topics in ME for General Electric Students II Applied Aerodynamics	Peters Gopalarathnam		
MAE 589	Special Topics in ME for ABB Students I	Peters		
MAE 589	Special Topics in ME for ABB Students II	Peters		
MAE 708 MAE 734	Advanced Convective Heat Transfer Finite Element Analysis II	Kuznetzov Zikry		
MAE 787	Structural Health Monitoring	Yuan		
MAE 789  Electrical and Computer Engineering (courses only)	Advanced Dynamics II	Mazzoleni		
ECE 506	Architecture of Parallel Computers	Gehringer		
ECE 515 ECE 516	Digital Communications System Controlled Engineering	Duel-Hallen Rindos		
ECE 516 ECE 517	System Controlled Engineering Object-Oriented Design and Development	Gehringer		
ECE 524	Radio System Design	Ricketts		
ECE 535 ECE 544	Design of Electromechanical Systems Design of Electronic Packaging and Interconnects	Buckner Evans		
ECE 546	VLSI System Design	Davis		
ECE 551 ECE 552	Smart Electric Power Distribution Systems Renewable Electric Energy Systems	TBA		
ECE 561	Embedded System Design	Baran Dean		
ECE 563	Microprocessor Architecture	Becchi		
ECE 566 ECE 570	Computer Optimization and Scheduling Computer Networks	Tuck Liu		
ECE 573	Internet Protocols	Shahzad		
ECE 574 ECE 575	Computer and Network Security Introduction to Wireless Networking	Reaves Wang		
ECE 575	Electric Power System Protection	White		
ECE 583	Electric Poer Engineering Practicum I	Gajda		
ECE 589 ECE 591	Solid State Solar and Thermal Energy Harvesting Special Topics for General Electric Students	Vashaee Franzon		
ECE 591	Special Topics for ABB Students	Franzon		
ECE 600 ECE 712	ECE Graduate Orientation Integrated Circuit Design for Wireless Communications	Franzon Floyd		
ECE 712 ECE 726	Advanced Feedback Control	Rindos		
ECE 745	Application Specific Integrated Circuit Verification	Oden		
ECE 751 ECE 773	Detection and Estimation Theory Advanced Topics in Internet Protocols	Bottomly Harfoush		
ECE 786	Advanced Computer Architecture: Data Parallel Processors	Zhou		
ECE 792	Advanced Cloud Architecture	Papapanagioutou		
Industrial & Systems Engineering (courses only)				
ISE 510	Applied Engineering Technology	King		
ISE 537 ISE 540	Statistical Model for System Analytics in Industrial Engineering Human Factors in Systems Design	Fang Chen		
ISE 541	Occupational Safety Engineering	Xu		
ISE 562 ISE 748	Simulation Modeling Quality Modeling	Wan Fathi		
Materials Sciences and Engineering (courses only)				
MSE 500 MSE 555	Modern Concepts in Materials Science Polymer Technology and Engineering	Kwansa Thou		
MSE 556	Composite Materials	Kashichainula		
MSE 565	Introduction to Nanomaterials	Tracy		
MSE 580 MSE 589	Materials Forensics and Degradation Solid State Solar and Thermal Energy Harvesting	Koch Vashaee	Asynchronous streaming media	
MSE 591	Introduction to Materials Informatics — 8 weeks only	Yingling	,	
MSE 702 MSE 705	Defects in Solids Mechanical Behavior of Engineering Materials	Narayan Kashichainula		
MSE 705 MSE 706	Phase Transformations and Kinetics	Wisinger		
MSE 791	Biomaterials  Density Experience Theory in MSE	Yingling		
MSE 791	Density Functional Theory in MSE	Irving		
NORTH CAROLINA A&T UNIVERSITY				
Computer Engineering TBD	T			
Electrical Engineering	<u> </u>	1		
TBD				
OLD DOMINION UNIVERSITY				
Mechanical and Aerospace Engineering (MS and PhD)				
TBD				
UNIVERSITY OF MARYLAND				
Aerospace Engineering (MS and PhD) TBD				
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UNIVERSITY OF VIRGINIA				
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Chemical Engineering				
CHE 5561	Special Topics: Fundamentals of Process Safety for ChEs	Unnerstall	Asynchronous	
CHE 6447	Biochemical Engineering	Prpical	Asynchronous	
CHE 6618	Chemical Reaction Engineering	Koenig	Asynchronous	
CHE 6630	Mass Transfer	Ford	Asynchronous	
Civil Engineering				
CE 5035	Construction Estimating and Bidding	O'Malley	Asynchronous	
CE 5300	Adv Design of Metal Structures	Gomez	Asynchronous	
CE 5410	Intro to Transportation Planning	Miller	Asynchronous	
CE 5700	Foundations Engineering	Burden	Asynchronous	
CE 6015	Project Management	Penetti	Asynchronous	
CE 6230	Hydrology	Goodall	Asynchronous	
CE 6260	Environmental Microbiology and Biological Waste Treatment	Peterson	Asynchronous	
CE 6280	Stochastic Hydrology	Quinn	Asynchronous	
CE 6500	Special Topics: Introduction to Bridge Engineering and Design	Gomez	Asynchronous	
CE 6500	Special Topics: Dynamic Systems	Ozbulut	Asynchronous	
Electrical and Computer Engineering				
ECE 5260	Microwave Engineering I	Weikle	Asynchronous	
ECE 6140	Fundamentals of Nanoelectronics	Ghosh	Asynchronous	
ECE 6332	VLSI Design	Calhoon	Asynchronous	
ECE 6435	Computer Architecture and Design	Delong	Asynchronous	
ECE 6501	Special Topics: Optical Communication Devices	Beling	Asynchronous	
ECE 6502	Special Topics: Hardware for Modern Day Computing	Shukla	Asynchronous	
ECE 6502	Special Topics: Network Security and Privacy	Sun	Asynchronous	
ECE 6502	Special Topics: Photovoltaics	Gupta	Asynchronous	
ECE 6711	Probability and Stochastic Processes	Sidiropoulos	Asynchronous	
ECE 6713	Communication Engineering Systems	Shen	Asynchronous	
Materials Sciences and Engineering				
MSE 6020	Defects and Microstructure in Materials	Agnew	Asynchronous	
MSE 6240	Kinetics of Transport and Transformations in Materials	Opila	Asynchronous	
MSE 6270	Introduction to Atomistic Simulations	Zhigilei	Asynchronous	
MSE 6320	Deformation and Fracture of Structural Materials	Bums	Asynchronous	
MSE 7220	Surface Science	Reike	Asynchronous	
Mechanical and Aerospace Engineering				
MAE 6250	Multbody Mechanical Systems	Russell	Asynchronous	
MAE 6260	Robotic Autonomy	Furukawa	Asynchronous	
MAE 6310	Fluid Mechanics	Quinn	Asynchronous	
MAE 6410	Engineering Mathematics I	Spencer	Asynchronous	
MAE 6430	Statistics for Engineers and Scientists	Li	Asynchronous	
MAE 6592	Special Topics: The Business of Engineering	Williams	Asynchronous	
MAE 6592	Special topics: Dynamical Systems	Ozbulut	Asynchronous	
MAE 6710	Finite Element Analysis	Panzer	Asynchronous	
Systems Engineering				
SYS 5581	Special Topics	Small	Asynchronous	
SYS 6007	Human Factors	Bolton	Asynchronous	
SYS 6018	Data Mining	Porter	Asynchronous	
SYS 6041	Ethics in Engineering Research and Practice (EERP)	Lambert	Asynchronous	
SYS 6582	Special Topics: Human Error in Complex Systems	Riggs	Asynchronous	
SYS 6582	Special Topics: Introduction to Uncertainty Quantification	Alemazkoor	Asynchronous	
VIRGINIA TECH		·		
Aerospace and Ocean Engineering (MS and PhD)				
TBD				
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Mechanical and Aerospace Engineering (MS and PhD)				
ME 5734	Advanced Engineering Acoustics	Fuller	TR 3:30pm-4:45pm @ NIA Room TBD	