

Marine, Earth, & Atmospheric Sciences (Minor)

Plan Requirements

Master of Science Requirements

Code	Title	Hours	Counts towards
Required Courses		9	
Select nine hours of coursework approved in conjunction with the academic committee			
Total Hours		9	

Doctoral Requirements

Code	Title	Hours	Counts towards
Required Courses		12	
Select twelve hours of coursework approved in conjunction with the academic committee			
Total Hours		12	

Marine, Earth, and Atmospheric Sciences Courses

Code	Title	Hours	Counts towards
MEA 507	Discipline-based Education Research in the Geosciences	3	
MEA 510	Air Pollution Meteorology	3	
MEA 511	Introduction to Meteorological Remote Sensing	3	
MEA 514	Advanced Physical Meteorology	3	
MEA 515	Climate Dynamics	3	
MEA 517	Fundamentals of Climate Change Science	3	
MEA 518	Adaptation to Climate Change	3	
MEA 519	Barriers to Climate Change Literacy	3	
MEA 525	Introduction to Atmospheric Chemistry	3	
MEA 540	Principles of Physical Oceanography	3	

MEA 549	Principles of Biological Oceanography	3	
MEA 553	Estuarine Biogeochemistry	3	
MEA 554	Marine Physical-Biological Interactions	3	
MEA 562	Marine Sediment Transport	3	
MEA 568	Aquatic Microbiology	3	
MEA 570	Geological Oceanography	3	
MEA 573	Principles of Chemical Oceanography	3	
MEA 574	Advanced Igneous Petrology	3	
MEA 577	Electron Microprobe Analysis of Geologic Material	2	
MEA 579	Principles of Air Quality Engineering	3	
MEA 580	Air Quality Modeling and Forecasting	4	
MEA 581	Fluid Mechanics in Natural Environments	3	
MEA 582	Geospatial Modeling	3	
MEA 584	Mapping and Analysis Using UAS	3	
MEA 585	Physical Hydrogeology	3	
MEA 591	Special Topics in Marine Science	1-6	
MEA 592	Special Topics in Earth Sciences	1-6	
MEA 593	Special Topics in Atmospheric Science	1-6	
MEA 599	Regional Geology of North America	1-6	
MEA 601	Seminar	1	
MEA 611	Special Topics in Marine Sciences	1-6	
MEA 612	Special Topics in Earth Sciences	1-6	
MEA 613	Special Topics Atmospheric Sciences	1-6	

MEA 685	Master's Supervised Teaching	1-3	MEA 760	Biogeochemistry	3
MEA 690	Master's Examination	1-9	MEA 762	Marine Geochemistry	3
MEA 693	Master's Supervised Research	1-9	MEA 763	Isotope Geochemistry	3
MEA 695	Master's Thesis Research	1-9	MEA 779	Advanced Air Quality	3
MEA 696	Summer Thesis Research	1	MEA 785	Chemical Hydrogeology	3
MEA 699	Master's Thesis Preparation	1-9	MEA 788	Advanced Structural Geology	3
MEA 700	Environmental Fluid Mechanics	3	MEA 789	Topics In Appalachian Geology	3
MEA 703	Atmospheric Aerosols	3	MEA 790	Geotectonics	3
MEA 705	Dynamic Meteorology	3	MEA 791	Advanced Special Topics in Marine Science	1-6
MEA 707	Planetary Boundary Layer	3	MEA 792	Advanced Special Topics in Earth Sciences	1-6
MEA 708	Atmospheric Turbulence	3	MEA 793	Advanced Special Topics in Atmospheric Science	1-6
MEA 710	Atmospheric Dispersion	3	MEA 796	Exploration And Engineering Geophysics	3
MEA 712	Mesoscale Modeling	3	MEA 801	Seminar	1
MEA 713	Mesoscale Dynamics	3	MEA 810	Special Topics	1-6
MEA 714	Atmospheric Convection	3	MEA 811	Special Topics in Marine Sciences	1-6
MEA 715	Dynamics of Mesoscale Precipitation System	3	MEA 812	Special Topics in Earth Sciences	1-6
MEA 716	Numerical Weather Prediction	3	MEA 813	Special Topics in Atmospheric Sciences	1-6
MEA 717	Advanced Weather Analysis	3	MEA 885	Doctoral Supervised Teaching	1-3
MEA 719	Climate Modeling	3	MEA 893	Doctoral Supervised Research	1-9
MEA 721	Air-Sea Interaction	3	MEA 895	Doctoral Dissertation Research	1-9
MEA 735	Fourier Analysis of Geophysical Data	3	MEA 896	Summer Dissertation Research	1
MEA 741	Synoptic Physical Oceanography	3	MEA 899	Doctoral Dissertation Preparation	1-9
MEA 743	Ocean Circulation	3			
MEA 744	Dynamics of Shelf Circulation	3			
MEA 752	Marine Plankton Ecology	3			
MEA 759	Organic Geochemistry	3			

Faculty

Viney Pal Aneja

DelWayne R. Bohnenstiehl

David B. Eggleston

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Matthew David Parker

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Walter A. Robinson

William J. Showers

Lian Xie

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Paul Kevin Byrne

Christopher Lee Osburn

Astrid Schnetzer

Karl William Wegmann

Carli Arendt

Stuart Bishop

Magdalena Alyssa Ellis Curry

Catherine Van Wie Davis

Lily Hughes

Ethan Gordon Hyland

Sarah Larson

Ryan William Paerl

Andres Camilo Rey Sanchez

Arianna Soldati

Otis B. Brown

Curtis Congreve

Brian K. Eder

Elisabeth Streit Falk

Kenneth E. Kunkel

Roberto Javier Mera

Carrie J. Thomas

Joseph Brendan Zambon

Fredrick Semazzi

Charles Ernest Knowles

Satya Pal Singh Arya

Jerry M. Davis

David John DeMaster

Ronald Victor Fodor

John Crothers Fountain

James Patrick Hibbard

Thomas Sawyer Hopkins

Daniel Kamykowski

Leonard J. Langfelder

Leonard J. Pietrafesa

Sethu Raman

Allen J. Riordan

Dale A Russell

Ping-Tung Shaw

Edward F. Stoddard

Charles W. Welby,

Donna Lee Wolcott

Thomas G. Wolcott

William Howard Battye

Geoffrey Weszely Bell

Scott Anthony Braun

Michael Brennan

Subrahmanyam Bulusu

Brian A. Colle

Jeffrey Cunningham

Johannes Michael Leopold Dahl

Kathie Dello

David R. Easterling

Scott Howard Ensign

Troy Gilmore

Peter Hamilton

Russel S. Harmon

Barron Halton Henderson

Nam-Young Kang

David E. Kingsmill

Branko Kosovic

Emlyn Howard Koster

Benjamin Kravitz

Nicole Deneault LaDue

Romuald Lipcius

Huiqing Liu

David Mechem

Siddhartha Mitra

Maria Janeth Molina

Andrew Newell

Lester Perry

Sharon Phillips

Brandon Puckett

S. Trivikrama Rao

Joseph Rudek

Blake Schaeffer

Jenni Stanley

Robert Christopher Tacker

Susan White

Shaocai Yu

Yang Zhang