

Bachelor of Science in Atmospheric Sciences

Computational Atmospheric Sciences Option

Atmospheric Science Core (33 credits)

Introduction to Global Climate Change Science	CLIM 102 (4)	
Introduction to the Fundamentals of Atmospheric Science	CLIM 111 (3)	
Introduction to the Fundamentals of Atmospheric Science Lab	CLIM 112 (1)	
Weather Analysis and Prediction	CLIM 301 (4)	
Senior Research	CLIM 408 (3)	
Atmospheric Dynamics	CLIM 411 (3)	
Atmospheric Thermodynamics	CLIM 429 (3)	
Atmospheric Physics	PHYS 475 (3)	
Numerical Weather Prediction	CLIM 470 (3)	
Introduction to Scientific Programming	CDS 251 (3)	or
Scientific Information and Data Visualization	CDS 301 (3)	or
Scientific Data and Databases	CDS 302 (3)	or
Scientific Data Mining	CDS 303 (3)	
Elementary Differential Equations	MATH 214 (3)	

CLIM Electives (9 credits)

9 credits from the following

Physical Climatology	CLIM 312 (3) equivalent to GGS 312 (3)
Climate Dynamics	CLIM 440 (3)
Severe and Extreme Weather	CLIM 314 (3) equivalent to GGS 314 (3)
Air pollution	CLIM 319 (3) equivalent to GGS 319 (3)
Atmospheric Chemistry	CLIM 438 (3) equivalent to CHEM 438 (3)
Physical Oceanography	CLIM 412 (3)
Research Internship	CLIM 409 (3)
Introduction to Scientific Programming	CDS 251 (3)
Scientific Information and Data Visualization	CDS 301 (3)
Data Analysis and Global Change Detection Techniques	GGG 354 (3)
Environmental Impact Assessment	GGG 455 (3)
Introduction to Atmospheric radiation	GGG 456 (3)

Chemistry (4 credits)

General Chemistry I	CHEM 211 (3)
General Chemistry Laboratory I	CHEM 213 (1)

Computer Science (3-4 credits)

Computing for Scientists	CDS 130 (3)	or
Introduction to Computer Programming	CS 112 (4)	

Mathematics (11 credits)

Analytic Geometry and Calculus I	MATH 113 (4)
Analytic Geometry and Calculus II	MATH 114 (4)
Analytic Geometry and Calculus III	MATH 213 (4)

Statistics (3 credits)

Introductory Statistics I	STAT 250 (3)
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Physics (8 credits)

University Physics I	PHYS 160 (3)	University Physics I Lab	PHYS 161(1)
University Physics II	PHYS 260 (3)	University Physics II Lab	PHYS 261(1)

Mason Core and Electives (48 – 49 Credits)

In order to meet a minimum of 120 credits, this degree requires an additional 48 – 49 credits, which may be applied towards any remaining Mason Core requirements, required for bachelor's degree, and elective courses.