

Name: _____

Date: _____

M.S. Thesis Track Course Plan (04/04/2025)
Atmospheric Sciences Graduate Group

A. Prerequisites:

Course Number	Course Title	Units	Completion Status (indicate if completed at another institution, at UC Davis or not yet)
MAT 21A	Calculus	4	
MAT 21B	Calculus	4	
MAT 21C	Calculus	4	
MAT 21D	Vector Analysis	4	
PHY 9B	Classical Physics	5	

B. Core Requirements (15-20 units)

M.S. students are required to take at least one class from each of the five categories below, which encompass the main areas of the atmospheric sciences. Within each category, students must take one of the courses marked by the asterisk (*) unless the equivalent course was taken in a prior program. Additional courses to those listed below may be available. A “B” grade average or better is required for the core courses.

Course Number	Course Title	Units	Term /Year	Grade
Dynamics emphasis				
ATM 111	Weather Analysis and Prediction	3		
ATM 121A	Atmospheric Dynamics I (*)	4		
ATM 121B	Atmospheric Dynamics II (*)	4		
ATM 221	Advanced Atmospheric Dynamics	3		
ATM 250	Mesoscale Meteorology	3		
Climate emphasis				
ATM 115	Hydroclimatology	3		
ATM 116	Modern Climate Change	3		
ATM 215	Advanced Hydroclimatology	3		
ATM 240	General Circulation of the Atmosphere	4		
ATM 241	Climate Dynamics	3		
ATM 245	Climate Change Science and Impacts (*)	4		
Atmospheric Chemistry/Air Quality emphasis				
ATM 149	Air Pollution	4		
ATM 160	Introduction to Atmospheric Chemistry (*)	4		
ATM 231	Advanced Air Pollution Meteorology	3		
ATM 260	Atmospheric Chemistry	3		
ECI 242	Air Quality	4		
ECI 247	Aerosols	4		
ECI 241	Environmental Reactive Chemical Transport Modeling	4		
Biometeorological/Boundary Layer emphasis				
ATM 124	Meteorological Instruments and Observations	3		
ATM 133	Biometeorology (*)	4		
ATM 158	Boundary Layer Meteorology (*)	4		
ATM 223	Advanced Boundary Layer Meteorology	3		
ATM 233	Advanced Biometeorology	3		
ECI 289I	Introduction to Turbulence	4		
Atmospheric Physics emphasis				
ATM 120	Atmospheric Thermodynamics and Cloud Physics (*)	4		
ATM 128	Radiation and Satellite Meteorology (*)	4		
ATM 230	Atmospheric Turbulence	3		
ATM 244	Cloud and Precipitation Physics	3		
Total Units:				
Average Grade:				

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C. Elective Courses (10-15 units)

The M.S. Thesis Plan requires additional graduate and upper division undergraduate elective courses (100 and 200 series) chosen to satisfy the four requirements below. Depending on the total number of units of core courses taken, students are required to take between 10 and 15 units of elective courses, for a **minimum of 30 total units**. The research thesis serves as the capstone requirement. Research units (299 or equivalent) do not count towards the elective course requirement. The following four elective course requirements must be met:

	Completion Status
i. Graduate and upper division units beyond the core coursework to complete the 30-unit total courses requirement. These elective courses should be chosen with the advice and consent of the Major Professor and/or the ASGG Graduate Advisor.	
ii. At least 12 units of elective courses must be graduate-level courses that are either in ATM, instructed by an ASGG-affiliated faculty member, or approved by the ASGG Graduate Advisor. These courses are part of requirement i. above.	
iii. A maximum of 3 units can be taken as S/U.	
iv. At least 2 units, and at most 4 units, of ATM 290 during which students must give at least one format in-class oral presentation. More details are provided in the ASGG Seminar Guidelines available on the ASGG website (https://atm.ucdavis.edu/download_file/323/0).	

List the elective courses successfully completed:

Course Number	Course Title	Units	Term /Year	Grade
			Total Units:	

D. Research Units (6 units)

The research thesis serves as the capstone requirement. At least 6 units of research (299 or equivalent) are required.

Course Number	Course Title	Units	Term /Year	Grade
			Total Units:	