

Weather and Climate Risk and Data Analytics M.S. Research Project

The capstone course, ATMS 596: Non-Thesis Research, is this program's version of a master's research project and is taken twice for a total of 8-credit hours towards the 32-credit hours required in this program.

Students have the option of designing and completing one capstone research project that takes 2 semesters, or one distinct capstone research project each of the two semesters. In these project(s), students will apply the technical and conceptual tools, skills, and knowledge they build through their coursework to a relevant weather or climate-related problem. We encourage students to customize their project(s) based on their personal interests, as well as their career goals, in weather and climate applications.

As an example project, students could investigate how an aspect of a climate or weather phenomena or industry interest is impacted by climate or weather factors. The student could explore patterns, trends, or relationships in this through applying rigorous statistical tools and techniques using Python and/or R.

The capstone project will be guided and evaluated by a minimum of one Atmospheric Sciences departmental faculty member, and optionally also by a professional in a relevant industry or other approved organization.

When complete, the capstone project will be something that students can add to their professional portfolios, further demonstrating students' abilities to address challenging weather and climate problems using cutting-edge statistical and analytical skills and tools.