Addendum to Undergraduate Research (ATMS 499) Syllabus in the ATMS Department

Project: FIELD WORK for Improving Snowfall Forecasts in WNC **Fall 2023**

Description:

Field research associated with making weather observations during winter precipitation weather events in Buncombe County. This project is a collaborative effort with researchers at Appalachian State University, NC State University, and the National Weather Service and seeks to uncover patterns or conditions that can aid forecasters in making more accurate snowfall accumulation predictions near the southern Appalachian Mountains.

Expectations:

Meeting times; once or twice per semester, working primarily in the field

Hours per week of research; sporadic hours totaling ~ 8-20 hours per semester

Project deliverable(s); launch weather balloons, make weather observations, and post weather information (Skew-T Log-p diagrams and raw data) in real time during an Intensive Observation Period (IOP).

What does it take to get a grade of 'A' on this research project?

Each research team member must meet with Prof. Miller at least once a semester to update data collection and dissemination procedures. Each research team member is expected to be in the field observing winter precipitation *at least once* in a semester. Each research team member is responsible to maintain an accurate log of their hours spent in the field and must turn in a timesheet based on the field log after the conclusion of their IOP.

Contact information

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Addendum to Undergraduate Research (ATMS 499) Syllabus in the ATMS Department

Project: Improving Snowfall Forecasts in Western North Carolina **Fall 2023**

Description:

Data analysis (laboratory) research associated with snow events observed in western North Carolina that attempts to uncover patterns or conditions that can aid forecasters in making more accurate snowfall accumulation predictions near the southern Appalachian Mountains.

Expectations:

Meeting times; at least once every two weeks

Hours per week of research; a minimum of one-two hours

Project deliverable(s); A brief report (5-10 pages) outlining the literature search, methodology, results, and conclusions of completed research at the end of a non-NCUR or non-symposium semester. An oral or poster presentation outlining the same parts (literature search, methodology, results, and conclusions of completed research) at NCUR, UNCA symposium, and/or at a professional event (e.g. AMS conference) outside of the UNCA campus.

What does it take to get a grade of 'A' on this research project?

Each research team member must meet with Prof. Miller at least once every two weeks to plan and evaluate the research project. Each research team member is expected to be working on their project for a total of at least 14 hours each semester. Each research team member is responsible to maintain an accurate log of their hours spent working on research and must turn in a timesheet based on the research log near the end of the semester.

Contact information

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