Agency of Transportation and Northern Vermont University Celebrate 15 Years of Partnership

Students produce weather forecasts for AOT Maintenance Districts

Barre, Vt. – The Vermont Agency of Transportation (AOT) and Northern Vermont University (NVU) are celebrating 15 years of working together to manage Vermont’s winter road conditions with public safety in mind.

Students in NVU’s Atmospheric Sciences program provide daily weather forecasts for AOT maintenance districts from November through April. AOT uses this tailored weather forecast information to help with workforce management and strategies to tackle winter weather.

“All of our districts rely on the students’ weather forecasts to plan their winter highway maintenance activities every time there are conditions that potentially require us to plow or treat the roads,” said Maintenance Bureau Director Todd Law. “The forecasts from the NVU meteorology students are reliable, professional, and a vital source of information for our maintenance planning throughout the winter.”

Each district receives a forecast that is specific to its area of the state, enabling maintenance staff to plan for impending weather.

“AOT reached out to NVU [Lyndon State College at the time] because of our expertise in weather forecasting. They wanted better information to make better decisions to make roads safe and manage their workforce,” said Jay Shafer, NVU professor of Atmospheric Sciences who created the project with AOT. Jay has managed more than 130 students in these forecaster roles. “The value of this program for the students is learning how to work together as a team. Learning to collaborate and communicate is more of an art than a science, and the only way to learn this is to jump in and do it.”

The NVU-Lyndon student meteorologists apply for the jobs each year during their junior and senior years. The students are paid for their work, which helps to make college more affordable. The students forecast weather conditions every day, including weekends and holidays when inclement weather is anticipated.

Working in teams of three, each student is assigned to three districts to forecast during their shift and will rotate through all nine districts during the season. Students work from
one to three days each week, creating their forecasts with information gleaned from a variety of information sources between 11 a.m. and 1 p.m.; all forecasts are due to AOT at 1 p.m.

Rosemary Webb, who will graduate in May with a degree in Atmospheric Science, is one of the lead forecasters, a perfect role for a student looking to land a position as a weather forecaster. “It’s real-life experience actually forecasting for a client who uses it to make decisions,” she said. Webb leads her group of three and is responsible for writing a summary of statewide weather based on the group’s discussion. “In my first year it was a little stressful figuring out how to forecast in a short amount of time, but then you get into a routine.”

Bobby Saba, who is working to complete a bachelor’s degree in Atmospheric Sciences and an associate’s degree in Broadcast and Digital Journalism in May 2022, joined the program this year. “I got involved as soon as I could!” he said. As a weather broadcaster, Saba will have to do his own forecasting, “Being able to do this for a state that has some pretty wild weather will help set me apart from others applying for the same jobs.”

“It’s close to what a real field job feels like, and the students see the application of what they are learning,” Shafer said. “This experiential learning helps to make our atmospheric science program strong and greatly benefits the State of Vermont.”

AOT looks forward to continuing the partnership with NVU next winter.

“The program has been a great success, and we are grateful to the students and their professors for their ongoing work to support Vermont winter highway maintenance and safety,” said AOT Chief Engineer and Highway Division Director Ann Gammell.

*Northern Vermont University is a two-campus institution of higher education that combines the best of our campuses’ nationally recognized liberal arts and professional programs. At Northern Vermont University, our goal is to guide curious, motivated, and engaged students on their paths to success and their places in the world. NVU Online offers flexible, affordable, high-quality options for learners pursuing their bachelor’s and master’s degrees as well as certificates. NVU offers a full range of associates, bachelor’s, and master’s degrees as well as credit and non-credit certificates and professional development courses. Learn more at NorthernVermont.edu.*