STUDENT RESEARCH IN GEOLOGY, HYDROGEOLOGY, METEOROLOGY ENVIRONMENTAL SCIENCE AND EARTH SCIENCE EDUCATION AT SUNY ONEONTA

Oneonta students don't just learn science in the classroom. The Earth Sciences Department believes that one of the best ways to learn science is by *doing science*. Participating with faculty mentors in real scientific research gives our students an opportunity to see science from the inside and experience the excitement of discovery firsthand.

Research projects have taken Oneonta students to places as exotic as **Alaska** and the **Czech Republic**. Our students have conducted research on coastal processes on **Long Island** and **Cape Cod**, volcanic deposits in **Quebec**, unique fossils and caves in **Central New York**, monitoring water quality and reconstructing past floods in the **Susquehanna Basin**, faults in **Western New York**, rocks formed under extreme temperatures and pressures in the **Adirondacks**, acid lakes in **Pennsylvania**, sea level changes in **Florida**, complex geologic structures through kayak-based travel on the islands of coastal **Maine**, archaeological sites using ground-penetrating radar and the workings of modern glaciers in **Alaska**. Student researchers have investigated fog-forming processes and how atmospheric conditions affect baseball! Some have developed models of complex Earth processes for use in the classroom. Student scientists use tools such as computers, GPS, seismic profilers, ground-penetrating radar, scanning electron microscopes, X-ray fluorescence spectrometry and digital imaging technology to solve important scientific problems.

Career doors open easily for students that participate in scientific research. Over 80% of our student researchers have published the results of their studies and given presentations at science conferences. With these unique experiences on their resumes, career opportunities abound for graduates from Oneonta's Earth Sciences Department. Past student researchers are now environmental managers, petroleum explorationists, environmental consultants, government regulators, museum exhibit specialists, mining consultants, meteorologists, wind power consultants, lawyers, high school teachers, and corporate executives. A few even became research scientists!