

North Carolina State University, along with North Carolina Central University, have developed a learning module which focuses on a general understanding of viruses, as well as the implications of norovirus in food safety. The module, titled “Outbreak! Attack of the Norovirus!” specifically concentrates on four areas which align with the National Science and Health Education Standards, including 1) properties of viruses and how they differ from bacteria; 2) the replication of viruses; 3) the symptoms of Norovirus and its transmission routes; and 4) food safety practices to prevent foodborne illnesses.

Following a 5E Model teaching approach, the module engages the students by creating a cruise ship scenario of a norovirus outbreak. The “passengers” embark on a journey that takes them through interactive learning stations highlighting the aforementioned concentration areas. The module is complete with a hands-on laboratory exercise focused on the detection of noroviruses using nucleic acid-based testing.

North Carolina State University and NCCU presented the module at NC A&T University’s Golden Leaf Summer Academy Teacher Workshop in Greensboro, NC on June 19, 2012. There were 52 middle school and high school teachers participating in the workshop, representing over 8 counties within the state. A second workshop was held on August 8, 2012 at North Carolina Central University’s Biomanufacturing Research Institute and Technology Enterprise (BRITE) facility in Durham, NC. A total of 25 participants, representing nine counties from across the state, attended the workshop. Evaluations of the module were extremely positive, resulting in the motivation of teachers to include food safety within their curriculum.