

Project EARTH: An Innovation in Education and an Education in Innovation

The Delta Omega Award for Innovative Public Health Curriculum aims to highlight public health curricula that are innovative, integrate actual public health practice experience, emphasize the application of public health principles, focus on skills and development, and involved community-sector partners in teaching.

[Project Earth: An Innovation in Education and an Education in Innovation](#) was recently selected as the 2017 Delta Omega Award for Innovative Public Health Curriculum winner. Project Earth includes three programs submitted for the award - the ESSENTIALS course, the Doctoral Seminar, and the SKILLS Experiences- which provide students the opportunity to work together as a team, think creatively, solve problems, and innovate. While these program are about learning to “make” specific products, their real value is the creation of challenging situations that require students to work together and innovate. The key concept is that “it is the process, not the product, that is important”. The products—ranging from shoes to brick stoves and from water filters to replicas of houses from the developing world—ARE important, and may well make a difference if the student were to find themselves in a low-resource or disaster-related scenario. However, it is the process of working in a team to make these products that is the real goal of the three programs—giving students the ability to “innovate to save lives.”

[The ESSENTIALS \(Essential Skills, Strategies and Expertise Necessary To Improve and Advance Low-resource Settings\) Course](#) is a required, semester-long, course that students take at the beginning of their first semester in the undergraduate public health program. Through a series of modules, students work together on a range of projects that might include making water filters, field hand-washing stations, and replicas of homes from low-income countries and a range of related projects. While the ESSENTIALS course is very effective at teaching students to “make things” that can promote or protect health in low resource settings, it is even more valuable as a vehicle to require students to work as a team, to think creatively, to innovate and to solve problems. It is the only course where it is acceptable, and encouraged, for students to make mistakes . . . as long as the group can fix those mistakes, later. Please view a brief introductory video to the [ESSENTIALS](#).

The Doctoral Seminar course (COBH 6195) requires DrPH students to work together to make innovative projects that can improve health and quality of life in low-resource settings. Each year, the specific challenges presented to the doctoral students varies. During the course of the semester, in addition to several other “real world” assignments, students work together to design and build one or more projects. Please view photographs of student projects over the years in the [Doctoral Seminar](#).

[SKILLS \(Short-term Knowledge, Immersion-Learning and Leadership Skills\)](#). Experiences are short-term (a few hour to a few day) non-credit, experiential-learning programs that are available to public health students, students in other disciplines, and members of the public. Though not credit-bearing, SKILLS experiences have been pursued by public health, medical and other health science students, the leadership teams of several local hospitals, several groups of honors students, high school counselors, high school students, members of the public, and others. These SKILLS experiences focus on the cross-cutting skills while simulating “real world” situations.

The “[Tortilla Experience](#)” requires participants to work together, over the course of one day, to complete everything that someone must do to create a tortilla. To this end, they must clear a patch of ground, plow the ground, plant corn, create rope for a fence, build the fence, make a brick stove with homemade bricks, cook the corn, grind the corn, and cook and eat the tortilla. In the course of a single day, participants come to understand the complexity of agriculture in low-resource settings, but also build strong team bonds through the process of collaborative work and joint planning and problem-solving.

The “[Refugee Experience](#)” requires a group of participants to work together to prepare for the influx of 25 refugees (simulated by 4 - 8 role-players) who will be in the “refugee camp” for 24 hours. During this one day experience, participants must address the refugee’s needs for food, water, shelter, medication, sanitation, security and all other needs. While planning the camp requires coordinated logistics, and careful attention to the refugees needs, the participants must also respond to medical and social “emergencies.” These “emergencies” are reflective of the skill level of the participants. For example, healthcare students and providers might have to deal with issues such as a compound fracture in an injured “refugee”, or a case of a potentially infectious diarrhea, while non-healthcare students might have to deal with local “villagers” who tell them to relocate the camp or a mother who tries to steal medications for her off-site daughter.

The “[Pioneer Experience](#)” has been exclusively used for high school students who are a part of the “Governor’s School”— spending one month at ETSU studying Tennessee History. This experience requires the students to recreate the movement of pioneers into Tennessee. They have to build a home, create sanitation, build primitive furniture and plant and build a fence around a garden. This three to four day Experience gives the students a first-hand view of the challenges of a relocating population and introduces them to college-level learning outcomes.

The [Niswonger VILLAGE \(Virtual International Living and Learning Across Global Environments\)](#) at the ETSU Eastman Valleybrook Campus is a public health “simulation lab” that replicates how people live and work in low-resource settings. Using role playing, “case studies,” and simulated scenarios, students face “real-world” challenges, and gain confidence in their ability to make a difference in the lives of other people. The VILLAGE is provides a summation of Project EARTH. Please view the [VILLAGE launch video](#) to see the scope of Project EARTH and the effect it has on students.