

Service Without Borders

Virginia Tech & Dhumba, Nepal
2016 Summer Implementation

SWB Student Spotlight



Thomas Belvin

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Mechanical Engineering Class of 2017

“Through these programs I’ve had the opportunity to coordinate and work with international partners, perform field engineering measurements, and develop leadership and design skills in the form of a real-world application with the potential to benefit an entire village.”



Kaitlyn White and Doug Belcik carry materials using traditional Nepali methods.



This Buddhist Temple in Dhumba Village is seated at 10,500 ft. above sea level in the Himalayan Mountains.
In January 2016, a group of three Virginia Tech students and two professors traveled to Nepal on behalf of Service Without Borders (SWB) to assess the earthquake damage in the culturally Tibetan community of Dhumba. Among them was Industrial & Systems Engineering Class of 2017 student Abigail Smith. With the help of the group’s in-country partners, the cohort trekked through the Himalayan Mountains to reach the village. They visited four sites that were damaged in the 2015 earthquakes to identify and gather information on potential service learning projects for Virginia Tech students and faculty. SWB and the community of Dhumba chose the rehabilitation of Dhumba’s irrigation system for their first project as the community relies on agriculture for subsistence farming and cash crops.

Throughout the Spring 2016 Semester, SWB students worked diligently to design solutions for the irrigation channel, construct a plan to increasing water flow, and fundraise for a Summer 2016 implementation trip. In June of 2016, another cohort of six students and two faculty traveled back to Dhumba Village to work alongside the community to implement the new irrigation system. The group initially met with the community to discuss goals and a plan of action. After learning the methods of Nepali construction techniques, the students set out to work. Waking up around 7 am every morning, starting their day with eggs, toast and tea, the students hiked up 1000 feet to the worksite. It was through teamwork with the community members that they constructed the irrigation system. The work included shoveling gravel, mixing and pouring cement, and brainstorming innovative ideas to strengthen the structure.

In addition to constructing the channel, students learned about Nepali and Tibetan culture. This included medicine making, meditation, lessons in archery and Buddhism, as well as through daily activities in the communities of Dhumba and Jomsom, a nearby community where they stayed. The students spent their days off mountain climbing in the Himalayas, and visiting cultural sites such as Muktinath Temple, a sacred place for both Hindus and Buddhists in a remote region of the Himalayas at an altitude of over 12,000 feet. From the busy and bustling streets of the capital, Kathmandu, to the quiet and remote regions of Jomsom and Dhumba, the students were immersed in the diverse culture, environment, and traditions of the Nepali and Tibetan people.

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