During winter break of the 2014-2015 school year, I had the privilege of traveling to Costa Rica for a study abroad experience entitled Ecological Engineering in the Tropics. Sponsored by the Biosystems Engineering Department, this study abroad focused on the analysis of systems and processes within vital industries across the country, from food and energy production to wastewater treatment and ecosystems management. We studied their various components, how they operate, and how they affect and are affected by Costa Rican society, economy, and ecology.

During my day as Day Leader, where I took on additional responsibilities for organizing events and documenting our activities and analysis, I focused my final project on pineapple production. We visited Coopedota, a giant coffee cooperative in the Central Valley, and studied their various components, how they operate, and how they affect and are affected by Costa Rican society, economy, and ecology.

During the tour of the Corbana banana research, agricultural, we visited the OTS research facility in La Selva, where we studied biodiversity and plant communities. We also visited a pineapple processing plant, which was very beneficial for me since I focused my final project on pineapple production. We studied their various components, how they operate, and how they affect and are affected by Costa Rican society, economy, and ecology.

Finally, we returned to Fabio Research Station for the last few days to design, build, and test our solid-liquid separation prototypes and write our preliminary reports. We visited a national park in attempts to see the active volcano Mt. Poas, but then it was time to return home.

Overall, it was an incredible experience! In addition to seeing the wildlife and enjoying the local cuisine, I deepened my passion for food operations and engineering as a
I practiced analytical techniques and honed my organization, communication, and problem solving skills by working in multidisciplinary and multicultural design teams. More importantly, I gained new insight into the innumerable factors that affect food production, and how to account for these in optimizing processes to serve different goals. It is my goal to keep learning more about this fascinating field, and to apply skills and knowledge from coursework and hands-on experiences to my future line of work.

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