UBC Teaching and Learning Enhancement Fund

Final Report – maximum 2 pages

Project Name: UBC Engineering Design Teams

Date: April 27, 2015 Submitted by: Emily Wyatt

Year of Funding: 2014/15

Summary of Work Accomplished

Funds from the TLEF fund were used to support UBC Engineering Design Teams, which provide a critical technical, leadership, and management learning opportunity for students across UBC. The existence of Design Teams currently allows over 400 students to apply their technical design skills in a realistic engineering setting, and often manufacture a product or machine from scratch. Teams are part of the Faculty of Applied Science, raise their own funds to support their projects, and expected to fulfill certain criteria throughout the year, particularly related to workplace and worker safety, and communication with a faculty advisor. The scope of teams extends across the departments in Applied Science, and includes support from Mechanical, Electrical, Civil, Chemical and Biological, and Materials Engineering departments. Teams are provided with workspaces, which are allotted based on demonstrated need and continuing demonstration that the team adheres to workspace best practices. There are several capital assets that are a common resource to all teams, and shared on an honour-based system. The shared assets allow teams to avail of certain facilities that are common to all, without posing an additional financial stress to individual teams.

Funds were used for safety-related asset purchases by UBC Engineering student teams, in line with efforts to ensure a higher standard for safety in student projects, and upgrades to services facilities such as the dynamometers and the trailers accessible by all teams.

The safety purchases were part of an effort by the Faculty of Applied Science to ensure that all activities related to student teams were being conducted under workplace safety best practices. These included safety kits for each team workspace, shelving to ensure aisles were kept clear, respirator purchase and fitting by UBC Risk Management Services for students working with chemicals. The purchase of these materials removed any additional financial stress that student teams might face with already aggressive budget.
Other capital asset purchases included upgrades to the teams trailer, purchase of tools, freight for shared resources, upgrades to the dynamometer, and the purchase of cupboards.

Evaluation of Project's Success

(Include evidence of rigorous evaluation.)

The funds allocated to the project allowed for the direct support of student design teams, and ensured that the work done met industry workplace standards, as well as created an added value to students' education. The purchases were made in conjunction with teams needs, represented by the Team Leaders, and authorized by a Faculty of Applied Science staff member. Since a large number of purchases made resulted as a need voiced by team members, the evaluation of the success in this case was the positive feedback from the teams themselves.

Due to the change in structure within which student teams operate, from a council based structure, to the current one where teams function independently within the Faculty, and are supported by a student hire Teams Coordinator who reports to the Student Professional Development Officer.

Due to the change in structure and leadership, the Access Control Projects, Curriculum Design were not undertaken, as well as the purchase of the robotics platform under the Capital Assets budget. We ask that the Capital Asset component of the funding is renewed ($52,750.42) so that we can continue to build our student design team spaces and equipment to develop an optimal learning environment. If the funds are renewed, these will be re-evaluated and executed if the shared benefit to all student teams, and thus all students, is still demonstrated.

Financial Summary