

1116-D5-1444 **Tevian Dray*** (tevian@math.oregonstate.edu), Department of Mathematics, Oregon State University, Corvallis, OR 97331, and **Corinne A. Manogue** (corinne@physics.oregonstate.edu), Department of Physics, Oregon State University, Corvallis, OR 97331. *Reimagining Second-Year Calculus: The Vector Calculus Bridge Project.*

In 1997, the Department of Physics at Oregon State University completely redesigned their upper-division major. With ongoing funding from NSF, they developed 18 new courses, reorganizing the curriculum around mathematical themes such as spherical symmetry. In 2000, a closely related project, the Vector Calculus Bridge Project, began to address the gap between the ways mathematicians typically teach vector calculus, and the ways in which other scientists typically use it. With funding from NSF, a series of small group activities were designed to emphasize geometric reasoning, and a novel, online textbook was written to accompany them. These projects merged in 2006, and since 2013 significant effort has been devoted to developing similar materials for all of multivariable calculus.

This talk summarizes the history of the Bridge Project, its successes and failures, and what we've learned along the way. One of the unanticipated successes: The creation of a learning community that has met monthly for 18 years to discuss curriculum and student learning (mostly in physics)! (Received September 19, 2015)