

1125-H5-2791 **Amit A Savkar*** (amit.savkar@uconn.edu), 341 Mansfield Road, U1009, Storrs, CT 06269, and **David Nichols**, 341 Mansfield Road, U 1009, Storrs, CT 06269. *3D visualizations in multivariable calculus: A pedagogy through technology*. Preliminary report.

In the fall of 2016 multivariable calculus switched its offering from a small lecture format to a large lecture format at the University of Connecticut. The issue of visualizing surfaces, planes, intersections, normals etc in multivariable calculus was considered to be most difficult for the students by the instructors who taught this course. Thus a project was undertaken to create visualization tools that could not only help students with visualization but also allow them to interact with the figures while grasping the mathematics around it.

We have developed several different visualizations for multivariable calculus using open source libraries GNU and MIT. Using basic JAVA scripts we are able to create these tools that interact with students online. We will discuss these tools as a meaningful way of using technology within the classroom and s (Received September 20, 2016)