1153-97-470 **Benjamin Z. Webb*** (bwebb@mathematics.byu.edu), 308 TMCB, Brigham Young University, Provo, UT 84602. *Mentoring in Broad and Interdisciplinary Research Areas.*

Many of the topics students, especially undergraduates, are interested in come from non traditional research areas. These areas either cross boundaries in mathematics or cross boundaries from mathematics into other research areas. While these crossovers come with complications there are some important benefits to consider when mentoring both graduate and undergraduates in these broad research environments. Here I will discuss some of the features of mentoring undergraduates as it relates to my own experience. The primary research area I will discuss is my research with undergraduates on network dynamics, which has connections to the theory of dynamical systems, network science, spectral graph theory, data science, machine learning, robotics control, and others. (Received September 03, 2019)