1125-E5-729Emily J Evans* (ejevans@mathematics.byu.edu), 275 TMCB, Brigham Young University,
Provo, UT 84602. Undergraduate Spectral Theory with Computer Labs.

In this talk I will discuss our success in teaching advanced spectral theory to junior students as part of Brigham Young University's applied and computational mathematics emphasis. In particular I will address how we introduce, motivate, and teach topics typically not seen until graduate school including the Perron-Frobenius theorem, the spectral mapping theorem, Krylov subspace methods and the pseudospectrum. Special care will be taken to discuss the computer labs that accompany the material taught. These labs provide motivation, practice, and interesting problems for the students to solve. (Received September 10, 2016)