This week began with a discussion of orthogonal bases. We defined a collection of vectors an orthogonal basis for S if they span F and they are all orthogonal to one another. In addition, the vectors must be normalized so that their norms are all equal to 1. Examples of orthobases include certain piecewise constant functions on different intervals, fourier series, Legendre polynomials (orthogonal bases for polynomials of degree n), and sampling of bandlimited periodic functions.