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The theory of Nevanlinna-Pick and Carathéodory-Fejér interpolation for matrix- and operator-valued Schur class functions on the unit disk is now well established. P.S. Muhly and B. Solel recently introduced a notion of Schur class and associated Nevanlinna-Pick interpolation theory in the context of a Fock space built from a  $W^*$ -correspondence  $E$  over a  $W^*$ -algebra  $\mathcal{A}$  and a  $*$ -representation  $\sigma$  of  $\mathcal{A}$ . In addition to the classical case, a particular instance of this setting is a Schur class equal to the unit ball of the Toeplitz algebra associated with a directed graph (or quiver). In this talk we make explicit the content of the Nevanlinna-Pick interpolation theory for this setting and discuss connections with other recent work on generalized Schur classes and interpolation theory. (Received August 29, 2009)