

**Pure Math 950**  
**Nonself-adjoint Operator Algebras**

**K.R. Davidson**

**Class Meets:** Tuesdays and Thursdays, 10:00–11:30 in MC 5046

**Required Background:**

- measure theory
- functional analysis
- complex analysis
- Banach algebras

**Course Outline**

- Function algebras.  
These are subalgebras of  $C(X)$ . We will look at general structure (boundaries, representing measures, Gleason parts) and answer some questions about analytic structure and approximation.
- Nest algebras.  
A nest algebra is the set of all bounded operators on a Hilbert space with a prescribed triangular form. The goal is to develop their structure, and characterize nest algebras up to isomorphism.

**Textbooks** There are no required texts. The following books will be on reserve in the library for 1-day loans.

- *Uniform Algebras* by T. Gamelin
- *Introduction to Function Algebras* by A. Browder
- *Nest algebras* by K.R. Davidson

**Grading**

- Assignments            75%
- Seminar and paper    25%
- no exam